



New Zealand
College of Midwives

TE KĀRETI O NGA KAIWHAKAWHANAU KI AOTEAROA

JOURNAL

Birth under restrictions: Exploring women's experiences of maternity care during the COVID-19 lockdown

Midwives' perceptions of enablers and barriers to pertussis and influenza vaccination in pregnancy

A vision of decolonisation: Midwifery mentoring from the perspective of Māori mentors

The lactation and chestfeeding/ breastfeeding information, care and support needs of trans and non-binary parents

ISSUE 59
DECEMBER 2023

New Zealand College of Midwives Journal

The New Zealand College of Midwives Journal is the official publication of Te Kāreti o ngā Kaiwhakawhānau ki Aotearoa | New Zealand College of Midwives and is a double-blind peer-reviewed journal that presents research undertaken within a continuity of midwifery care framework. The Journal is aimed at both national and international readers with an interest in pregnancy and childbearing, including midwives, student midwives, midwifery managers and educators, allied health professionals and consumers.

The Aims of the Journal are:

- to promote health as it relates to childbearing wāhine/women/people and their whānau/families
- to promote the view of childbirth as a normal life event for the majority of wāhine, and the midwife's role in effecting this
- to provoke discussion of midwifery issues
- to support the development of Aotearoa New Zealand midwifery scholarship
- to support the development and dissemination of Aotearoa New Zealand and international research into midwifery and maternal and child health
- to provide evidence to support midwifery practice.

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The Journal uses online open-access, article-based publishing. Once a paper is ready for publication, it is disseminated first to College members, and then made publicly available on the College website. Each issue covers a calendar year and is available online in full after completion.

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The Journal welcomes original research, literature reviews, case studies, audits and research methodology manuscripts that fit with the aims of the Journal. Submissions should be emailed to co-editor, Claire MacDonald, research@nzcom.org.nz. See the Journal webpages for further information, including helpful writing tips and how to submit a manuscript: <https://www.midwife.org.nz/midwives/publications/college-journal/>

SUBSCRIPTIONS AND ENQUIRIES

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ISSN. 0114-7870 (Print)
ISSN. 1178-3893 (Online)

Cover: Koru photograph by Ted Scott

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Contents

Issue 59 • December 2023

EDITORIAL	A world of fun discoveries Dixon, L.	4
AOTEAROA NEW ZEALAND RESEARCH	Birth under restrictions: Exploring women's experiences of maternity care in Aotearoa New Zealand during the COVID-19 lockdown of 2020 Dixon, L., Jackson, T., Tamati-Elliffe, J., McAra-Couper, J., Griffiths, C., Miller, S., & Gilkison, A.	5
AOTEAROA NEW ZEALAND RESEARCH	Women's knowledge, attitudes and access to vaccines in pregnancy: A South Auckland study Friday, A., Clemons, J., Krishnan, T., Gillard-Tito, S., Fielder, A., & McAra-Couper, J.	14
AOTEAROA NEW ZEALAND RESEARCH	Uncertainty and flexibility: Midwifery students' experience during the COVID-19 pandemic in Aotearoa New Zealand Jackson, T., Gilkison, A., McAra-Couper, J., Miller, S., Dixon, L., Tamati-Elliffe, J., & Griffiths, C.	21
AOTEAROA NEW ZEALAND RESEARCH	Midwives' perceptions of enablers and barriers to pertussis and influenza vaccination in pregnancy and information sharing Young, A., Willing, E., Gauld, N., Dawson, P., Charania, N. A., Norris, P., & Turner, N.	29
AOTEAROA NEW ZEALAND RESEARCH	A vision of decolonisation: Midwifery mentoring from the perspective of Māori mentors Pihema, N., Daellenbach, S., Te Huia, J., Dixon, L., Kensington, M., Griffiths, C., Gray, E., & Otukolo, D.	39
INTERGRATIVE LITERATURE REVIEW	The lactation and chestfeeding/breastfeeding information, care and support needs of trans and non-binary parents: An integrative literature review Gargiulo-Welch, S., Parker, G., & Miller, S.	47



EDITORIAL

A world of fun discoveries

Lesley Dixon, co-editor

Many midwives describe midwifery as a calling or a vocation. I never felt “called” to the role but, once I became a midwife 37 years ago, I never wanted to do anything else. Being a midwife has always provided a deeply satisfying and meaningful focus within my life. Similarly, the role of midwifery researcher has provided fulfilment as I explored the world of midwifery and the positive impact that midwives have on the women they care for. For me, research has indeed been *a world of fun discoveries*.

Now, though, it is time for me to refocus my life as I retire from my work as Journal co-editor and midwifery advisor at the College and say, *Hello to a new world*, one which is *free of schedules, time clocks and company rules* and where there is time to discover other passions.

I am not alone in moving forward to a new phase of life. During this year Jean Patterson and Ruth Martis have also resigned from the Journal Editorial Board. Jean has retired from her midwifery work, whilst Ruth has moved to Germany to take up a Professor of Midwifery role. Both have had a huge impact on the midwifery profession during their years working in research and academia and will be greatly missed. With change comes opportunities, however, and Claire MacDonald will take over as the Journal's professional co-editor and, along with Andrea Gilkison, Lorna Davies and Eva Neely, will help to lead the Journal into a bright future.

This edition of the Journal brings four topics under the spotlight. The first is the Covid-19 lockdown in 2020, with two papers exploring the impact for two different groups: women who were pregnant and who gave birth during the lockdown, and midwifery students whose studies were affected by the lockdown. Both groups identified the benefits and challenges of the service changes and how these affected them. Importantly, the findings can provide guidance on ways to ensure needs are met when the next pandemic emerges.

Vaccination during pregnancy was another topic that came under the spotlight, with an exploration of the knowledge and understanding of a group of South Auckland women about vaccines, by Ady Priday and her colleagues. Amber Young and her colleagues explored midwives' perceptions on what helps or hinders women's access to, and uptake of, pregnancy vaccination. Both papers provide better understanding of the nuances of pregnancy vaccination.

Nicole Pihema and colleagues explored mentoring and identify the importance of a decolonising approach to Māori midwifery mentoring. They explain how Māori mentor midwives see their role as supporting their mentees to navigate the Pākehā health system. They also found that mentoring strengthened and sustained the mentors themselves.

Lactation was the focus of our final paper for the year. Sarita Garguilo-Welch and colleagues undertook an integrative literature review of the lactation and chestfeeding/breastfeeding needs of trans and non-binary parents. They found that literature exploring our unique cultural context is needed to increase Aotearoa health providers' knowledge about providing culturally appropriate gender-inclusive care.

Each of these papers explores the perspective of either midwives or the women/wāhine/people they provide care to. They also demonstrate the quality and quantity of research being undertaken by midwives in Aotearoa. Any research undertaken within the Aotearoa context inevitably showcases the context of midwifery care and the inherent partnership relationship that midwifery is founded on. These relationships can provide satisfaction and empowerment for the midwives and those in their care.



Lesley Dixon

As I say goodbye, I would like to thank the members of the editorial board for their support over the years. I am also grateful to Karen Guilliland, Norma Campbell, Elaine Gray and Alison Eddy – who helped me realise my dream of becoming a researcher in my early years at the College. I would also like to thank all who work at the College and all those who help to ensure that the Journal is a high quality publication. This includes the reviewers, Rhondda Davies our wonderful proofreader, Hayley McMurtrie who leads the layout and design process and secretariat Annie Oliver who is quietly amazing at keeping everything systematic, consistent and organised. Lastly, I would like to thank all the members of the College for their support through the years, it has been a wonderful privilege to work for the College and as a co-editor of the Journal.

Hello to a new world

You've paid your dues,
Done your time,
Put in long hours, too,
And now, you're ready to retire.
That doesn't mean your life will end,
Indeed, it's just about to begin,
Great moments lie in wait for you
where life is free of schedules, time clocks and
company rules,
Adventures abound like sparkling jewels,
A world of fun discoveries to relate that come
without an expiration date,
When the travel bug bites,
You're free to take flight,
And, since you're the boss of what you do,
Retirement plans are all up to you.

Author unknown

The past and present co-editors and Editorial Board of the Journal wish to acknowledge and honour the astounding contribution that Lesley has made to midwifery research and scholarship in her time as co-editor of the Journal.

<https://doi.org/10.12784/nzcomjnl59.2023.0.4>

AOTEAROA NEW ZEALAND RESEARCH

Birth under restrictions: Exploring women's experiences of maternity care in Aotearoa New Zealand during the COVID-19 lockdown of 2020

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ABSTRACT

Introduction: In Aotearoa New Zealand the COVID-19 pandemic in 2020 resulted in a four-week lockdown in March and April of 2020 with ongoing restrictions for several weeks.

Aim: To explore the experiences of women who were pregnant, giving birth and/or managing the early weeks of motherhood during the 2020 COVID-19 alert levels 3 and 4 in Aotearoa New Zealand.

Method: This qualitative study used semi-structured interviews to explore childbirth experiences during the COVID-19 alert level restrictions. Reflexive, inductive, thematic analysis was used to identify codes, subthemes and themes.

Findings: Seventeen women participated in the study. Analysis of the qualitative interviews revealed four themes. The first of these was: **Relationship with my midwife**, in which participants described the importance of the midwifery continuity of care relationship, with midwives often going *above and beyond* usual care and *filling the gaps* in service provision. In the **Disruption to care** theme the participants described feeling *anxious and uncertain*, with concerns about the hospital *restrictions and changing rules*. The participants also described their **Isolation** during postnatal care in a maternity facility due to separation from their partners/whānau; they describe receiving the *bare necessities of care*, feeling they were *on their own*, and working towards their *release home*; all of which took an *emotional and mental toll*. The final theme, **Undisturbed space**, describes the positive aspects of the lockdown of being *undisturbed by visitors*, being better able to *bond with the baby* and being able to *breastfeed in peace*.

Conclusion: Midwifery continuity of care appears to have supported these women and their families/whānau during the service restrictions caused by the COVID-19 lockdown. The partner, or other primary support person, and whānau should be considered essential support and should not be excluded from early postpartum hospital care.

Keywords: COVID-19, childbirth, continuity of midwifery care, restrictions, lockdown

INTRODUCTION

The COVID-19 severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic began in China in 2019, and the disease was transmitted around the world, triggering a global response to combat its spread. The focus of the response was varied among countries but, during 2020, most relied on minimising social contact, maximising the health service response, and identification and contact tracing of cases.

The public health response in Aotearoa NZ

In Aotearoa New Zealand (Aotearoa NZ) various restrictions, isolation periods and lockdown were identified and assigned various “Alert” levels in 2020. There was a progression of restrictions/alert levels as disease transmission increased (Table

1), with the highest measure (Alert level 4) involving community-wide containment with households under “lockdown”. On 25 March 2020, Alert level 4 took effect as a national measure, meaning that the whole country was required to isolate at home, with the exception of essential services workers. This was enforced through the declaration of a state of national emergency. Health service changes were undertaken to reduce the spread of the virus but they also resulted in a variety of limitations/restrictions within both community and hospital services. The Alert level 4 lockdown until 28 April was followed by Alert level 3 restrictions for several weeks. After this, lower alert levels were maintained throughout most of the country, with some regions increasing to levels 3 and 4 periodically throughout the year (dependent on presence of community transmission).

Table 1. Aotearoa NZ alert level measures

Alert level	Measures
Alert level 4: Lockdown Likely the disease is not contained. Sustained & intensive community transmission. Widespread outbreaks	Staying home in a "bubble" No travel apart from necessities such as food shopping Work & learn from home All public & education facilities close Health consultations by phone or videoconference
Alert level 3: Restrict Medium risk of community transmission. Multiple cases of community transmission & multiple active but managed clusters	Staying home in a "bubble" Travel still restricted – stay local People unable to work from home can return to work Health care services continue to use virtual, non-contact consultations where possible
Alert level 2: Reduce Low risk of community transmission. Active clusters in more than one region	Connection & socialisation with friends & whānau allowed, including domestic travel Return to work is permitted but alternative ways of working encouraged Health and disability care services can operate as normally as possible
Alert level 1: Prepare Disease is contained in Aotearoa NZ. Could be sporadic imported cases and/or isolated local transmission	No restrictions on personal movements or gatherings All businesses, schools & facilities can open Healthcare facilities must have systems & processes in place to ensure visitors keep records of where they have been

Maternity care

Initially, the full impact of COVID-19 on the health of pregnant women and their infants was unclear but it has since been established that COVID-19 infection during pregnancy leads to an increased risk of maternal and perinatal complications (Akhtar et al., 2020; Kotlar et al., 2021; Metz et al., 2021; Villar et al., 2021). Therefore, limiting the spread of COVID-19 was an important public health measure.

Globally, there were a number of differing restrictions applied to maternity care, most of which involved reduced frequency of antenatal care contacts; reduced face-to-face care with an increase in virtual care; suspension of homebirth services; and exclusion of partners during antenatal care, sometimes during labour/birth and in the postnatal wards (Lalor et al., 2021). For those experiencing maternity care during COVID-19, these measures have been found to be stressful and challenging, with the potential to impact on emotional health and increase the incidence of anxiety and depression (Kotlar et al., 2021; Mizrak Sahin & Kabakci, 2021; Preis et al., 2020). Sanders and Blaylock (2021) conducted an online survey of user experiences of public health messaging and “socially distanced” maternity care in the United Kingdom (UK), finding that most respondents were generally happy to adopt a precautionary approach in an environment of extreme anxiety and uncertainty, but were also acutely aware of the negative impacts. These widespread changes to services caused confusion, distress and emotional trauma, with descriptions of inadequate antenatal and postnatal care, and frustration about a lack of staff to help with baby care. Similarly, a survey of 3364 Australian women found that women felt distressed and alone due to the COVID-19 maternity care changes and the limited face-to-face contact with health practitioners (Wilson et al., 2021).

In Aotearoa NZ women register with a Lead Maternity Carer (LMC)—a midwife, a general practitioner or an obstetrician—

who is responsible for their pregnancy, labour and birth and postpartum care (6 weeks). The majority (94%) of women register with a midwife LMC early in pregnancy and receive continuity of care with input from specialist services as required (Ministry of Health [MOH], 2022). Māori are the tangata whenua (people of the land/indigenous people) of Aotearoa NZ, and Te Tiriti o Waitangi (the Treaty of Waitangi) principles provide the framework for maternity care providers. Within health this involves Tino rangatiratanga (absolute sovereignty), equity, active participation, options and partnership (MOH, 2022). Tino rangatiratanga is described as “enabling whānau, hapū, iwi and Māori to exercise control over their own health” (MOH, 2014, p. 8); equity relates to supporting equitable health outcomes for Māori; active participation involves sharing evidence based information, and actively supporting Māori to make decisions that are best for them; options identifies maternity care enabling Māori to uphold their tikanga (customs), and be culturally safe; whilst partnership with Māori involves a partnered approach to decision-making which includes whānau so that Māori have self-determination over their bodies and reproductive health. During alert levels 3 and 4, the changes in the maternity service resulted in a move to telehealth and much shorter face-to-face physical contact by midwives in the community, with some reduction in frequency of clinical contact, limited access to some maternity services, restrictions on partner/companion/whānau support during antenatal care, restrictions on the number of companions/whānau during labour and birth and restrictions on partner/companion/whānau support in the hospital postnatal wards. At the time of this study the impact of these changes was unknown.

The aim of this research was to explore the experiences of women who were pregnant, giving birth and managing parenting in the early weeks of the postpartum period during COVID-19 alert levels 3 and 4 in Aotearoa NZ during 2020.

Glossary	
Hapū	Kinship group descended from a common ancestor
Iwi	Tribal group with a distinct territory
Te Tiriti o Waitangi	The Treaty of Waitangi, Aotearoa NZ's founding document
Wāhine	Women
Whānau	Family group

METHOD

This was a qualitative descriptive study using in-depth exploratory interviews. Recruitment to the study was through an information email circulated to midwives via the New Zealand College of Midwives membership database. This email was then forwarded to women by their midwives (snowballing). Women were invited to respond if they were living anywhere within Aotearoa NZ, were pregnant or had given birth during the COVID-19 restrictions (between March 2020 and December 2020), were over the age of 18, had access to the internet and a computer, and were able to speak and read English.

Data collection

All data collection was undertaken virtually and interviews were conducted via Zoom (or similar) audio-visual technology. An interview guide was developed and used by the research group to support the conversations (Table 2), and to identify what had worked well and what aspects of care had caused concerns for participants and their families/whānau. For participants who identified as Māori there was the option of having a Māori interviewer. The interviewer used further questions to elicit fuller responses as necessary.

Table 2. Semi-structured interview guide

The following questions were used as a semi-structured interview guide to explore experiences of maternity care:

- 1 Can you tell me about your experiences of being pregnant/giving birth/early parenting during the COVID-19 pandemic?
- 2 What changes to your pregnancy care did you experience as a result of COVID-19? How did this make you feel?
- 3 How did COVID-19 restrictions impact upon your partner/family/whānau or social support?
- 4 What changes to your birth care did you experience as a result of COVID-19? How did this make you feel?
- 5 Did your maternity care differ from what you expected it would be?
- 6 What changes to your postnatal care did you experience as a result of COVID-19? How did this make you feel?
- 7 Can you talk to us about your postnatal experience? Can you talk about your infant feeding during COVID-19?
- 8 Did you make any active decisions yourself to change your pregnancy/birth/postnatal plans as a result of the COVID-19 restrictions?
- 9 COVID-19 has had a huge impact – what might be some of the positive aspects of this pandemic in terms of provision of maternity care?
- 10 What could your care provider/service have done to make your experience better?

The audio-visual interviews were recorded, password protected and transcribed. All names have been changed to pseudonyms (chosen by the participants themselves, the research interviewers, or by the lead transcriber) to support participants' anonymity. Any identifying details have also been removed.

Analysis

Inductive thematic analysis was used to identify codes, subthemes and themes using Braun and Clarke's (2006) phases for reflexive thematic analysis. This involved: familiarisation with the data; the generation of labels to identify relevant features; the development of initial broader patterns and themes, which were shared and discussed with the wider group and included cultural considerations. Following discussion the themes were re-examined, further refined and then re-checked against the data.

Ethics approval was received from the Auckland University of Technology Ethics Committee (AUTEK; ref 20/147).

FINDINGS

There were 227 respondents to the email advertisement and the first 50 to respond and who met the criteria were sent research information sheets. Of these, 25 expressed an interest in being interviewed and consent forms were sent out, with a reminder two weeks later as necessary. Consent forms from 18 women were received and interviews arranged. One woman did not attend the arranged interview, resulting in 17 participants (Table 3). The majority of participants interviewed were of NZ European ethnicity, with 3 identifying as having Māori ethnicity; most gave birth during 2020 alert levels 3 or 4, although one gave birth at level 2 and one at level 1. One woman was pregnant at the time of interview and during alert levels 3 and 4. Eleven participants had planned to give birth in a primary unit, one changed to a homebirth, six changed to a secondary/tertiary unit and three transferred to a tertiary unit during labour. Two had a homebirth.

Table 3. Participants' background

Pseudonym	Domicile	Ethnicity	Age	Parity	Planned birth place	Actual place of birth	COVID-19 alert level status
Alix	Hamilton	Māori	33	1	Primary unit	Transfer to tertiary unit during labour	Birth Level 3
Belle	West Coast	NZE*	28	1	Secondary unit	Secondary unit	Birth Level 3 with move to Level 4 while in hospital
Bree	Waikato	NZE	29	1	Primary unit	Transfer to tertiary unit during labour	Birth Level 3
Brittany	Dunedin rural	NZE	24	1	Tertiary unit	Tertiary unit	Birth Level 2
Cara	Christchurch	Māori	19	1	Home	Home	Birth Level 4
Clarissa	Auckland	NZE	30	1	Primary unit	Tertiary unit	Birth Level 4
Courtney	Waikato	NZE	31	1	Primary unit	Transfer to tertiary unit during labour	Birth Level 3 prior to Level 4 (March)
Ingrid	Upper Hutt rural	NZE	34	1	Primary unit	Pregnant at date of interview 33/40	Pregnant during level 4
Jaya	Tauranga	NZE	36	5	Secondary unit	Secondary unit	Birth Level 4
Lucy	Lower Hutt	NZE	33	1	Primary unit	Secondary unit	Birth just as moving into Level 3 & 4
Maraea	Tauranga	Māori	23	2	Primary unit	Home	Birth Level 1
Mia	Waikato	NZE	33	2	Primary unit	Tertiary unit	Birth Level 4
Minnow	Taupō	NZE	30	1	Secondary unit	Tertiary unit	Induced Level 4, birth Level 3
Pascalie	Auckland	Other Euro**	39	1	Primary unit	Tertiary unit	Birth level 4
Rebecca	Oamaru	NZE	37	1	Primary unit	Tertiary unit	Birth Level 4
Suzy	Palmerston North	NZE	29	1	Secondary unit	Secondary unit	Birth Level 4
Zoe	Christchurch	NZE (husband Māori)	25	1	Primary unit	Tertiary unit	Birth Level 4

* New Zealand European

**Other European

Table 4. Themes identified in interviews

Theme	Subtheme
Relationship with my midwife	Extra precautions Going above and beyond Filling the gap
Disruption to care	Anxious and uncertain Restrictions Changing rules
Isolation	The bare necessities of care On my own Released home An ongoing emotional toll
An undisturbed space	Undisturbed by visitors Bond with the baby Breastfeed in peace

The relationship with my midwife

Participants identified the importance of the relationship with their midwives during this time of social change. The midwife was central to care provision and supported the woman to understand and adapt to the changes within the maternity services.

My relationship with my midwife became so important. ... I didn't realise how important a midwife is. You know, they are your real life line and [our midwife] became exceptionally important because we didn't have any other family to support us... (Rebecca)

As part of the self-isolation messaging, the Aotearoa NZ government and public health authorities developed the concept of “bubbles”. This was used to describe the household unit which could also span other members of the family or other households (shared custody/blended families). Midwives were considered a part of a household's bubble – especially when providing care in the home. Rebecca stated: *I can only imagine the pressure on the midwives because they became such a big part of everybody's wee bubble.*

Extra precautions

During the antenatal period, midwifery care continued but was altered to reduce the risk of transmission, with midwives advised to ensure social distancing, increased hygiene measures and shorter contact times. The participants described how they could still contact their midwife as necessary and felt reassured by this.

I didn't feel like my care was compromised in any way, I still had appointments with my midwife. My midwife did change the way she worked, in terms of calling a little bit more than face-to-face but I still had my face-to-face appointments. (Courtney)

Care adaptations involved less physical contact, and more phone, Zoom or Skype contact and limiting contact with others, such as the partner.

[My midwife] was still really good and we were still having appointments and she was still telling me what to do and we just kind of worked around the restrictions. So it was more just I couldn't come and see her at the clinic, it was over Skype. (Ingrid)

The participants described extra precautions being taken when they went to hospital for labour and birth but that these did not seem to affect their care. For example, Cara explained: *...everyone in the delivery ward and the maternity wards, they still let me have things exactly how I wanted and listened to me when I said “no” and stuff.*

Many of the women talked about the value of having their LMC midwife (or backup midwife) attend the birth with them, although

the midwives' role changed as they were required to provide more support for the woman and her partner due to the absence of the whānau.

She just said their roles kind of evolve a little bit more because of it... constantly checking in with you that you're alright, because your support people are missing. Your cheerleader, your cheer squad's not there. (Clarissa)

Following the woman's and baby's discharge home, the midwives continued to provide home assessments during the postpartum period, although care was adapted to limit physical contact.

She still came every week, or every couple of days in that first week, but after that first initial visit she would sit outside in the driveway and we would talk over the phone and ask all the questions, and then she'd come in and do a quick check on [our son] and do his weight and things like that. (Courtney)

Going above and beyond

The participants discussed how their midwives worked to ensure they had positive experiences despite the restrictions of the COVID-19 alert status. Courtney felt her midwife in particular was *going above and beyond to make sure I had the experience I wanted around COVID.*

Partners were unable to stay in the hospital following the birth but Clarissa described how it seemed to her that her midwife, while following the rules, managed to maximise the time her partner was able to be with her and the baby.

...my midwife was pretty awesome and, I think she fluffed around a little bit in the hospital, so that [my husband] could stay with me and the baby for as long as possible. So, I had my shower and she told me, 'just sit in there, take as long as I possibly can' and [my husband] was able to just sit with the baby. And then... I got moved to the maternity ward and so, as you're walking out, that's when I had to say goodbye to my husband. (Clarissa)

The LMC midwife provided time and space for the woman and her partner to get to know their baby, with the understanding that once transfer to the postnatal ward was undertaken the partner was unable to stay with them.

Filling the gap

Several participants identified a gap in service, which occurred postnatally on discharge from their LMC midwife (approximately 5-6 weeks post birth) when they would normally expect follow-on care from a Well Child service, such as Plunket. At this time these services were being provided online (virtual appointments) for the majority of service users. Clarissa was confused as to why other services could not visit, saying: *... if the LMC can come into our homes and check the baby, I don't actually understand why Plunket can't.* The lack of Well Child face-to-face service resulted in some midwives continuing to provide midwifery care longer to fill the gap.

Yeah, [the midwife] actually came, she stayed until... I think they're allowed to discharge us at 5 weeks, I believe, and she stayed until he would have been... 6 and a half weeks old, just because Plunket wasn't seeing anyone. (Clarissa)

It is clear some midwives filled the gaps in health service provision (when they saw a need) to ensure that the woman had a positive maternity experience.

Disruption to care

Anxious and uncertain

Participants recalled that their anxiety levels were high during the initial days of lockdown due to uncertainty around COVID-19 itself, but this was also exacerbated by the consequent changes to maternity care. Some of the women worried whether going to hospital to give birth would increase the risk of catching COVID-19 themselves.

I guess I was quite anxious when we went into lockdown as well, just worry about getting COVID or things that seemed really—now that I think about—seemed really farfetched but at the time were actually probably could have happened, just little things like, oh my God what if the hospitals are overrun and I give birth and my baby needs the ventilator and there are no ventilators and that kind of thing. (Suzy)

Anxiety about the new rules also resulted in more discussions about place of birth, and specifically homebirth. Jaya considered homebirth, saying: *I thought that if there were a few cases in the hospital I thought about giving birth at home.* Another focus of anxiety concerned who could be present during labour and birth, with homebirth being considered so that the participant could have family/whānau there. Cara considered homebirth so that she could have her mother present at the birth: *I just wanted to have the homebirth because, in hospital I was only allowed one birthing partner but if I'd had it at home my Mum could have been there as well.*

Restrictions

Participants described how they had to adapt to the restrictions, with partners unable to attend appointments due to the need to minimise contact and reduce the risks for the health professional.

...my partner couldn't come with me to my appointments and he was quite hands-on and because of his farming job we were always able to schedule appointments so that he could be there. And so I think that he found that quite hard... (Brittany)

Then, of course, as referred to above, family/whānau members' attendance at the birth was restricted, as Jaya commented: *There were restrictions with who you could have at your labour, so we had planned to have my Mum and my husband in there but my Mum wasn't able to.*

All of the participants described being able to have their partner with them during labour and birth but only once the labour had established.

My partner dropped me off but he wasn't allowed to come inside. Then at 4pm when they decided to take me into the birthing suite and get things started, he was allowed to come in, so I was by myself in the hospital for about 6 hours while he was waiting in the car outside. (Zoe)

Changing rules

Changes to alert levels often resulted in changes to rules within the maternity services but this also resulted in rules confusion for many of the participants. For example, Alix explained that *every day they were changing the rules on who could be there, who couldn't be there, whether you could have a support person, whether you couldn't, whether they could stay postnatally...* Some participants suggested there was a lack of logic to some of the rules. For example, Belle said: *I wasn't allowed to see my midwife in the hospital. She was only allowed to go there to birth babies, not to visit, so that was pretty hard.* Alix also described the inconsistencies in the rules:

My partner was allowed in the delivery suite but not in the maternity ward, yet he was allowed in NICU, and so while he was down there he could see him but as soon as [our baby] came back to maternity he couldn't, so there were just some real funny, wee inconsistencies. (Alix)

The apparent inconsistencies and changes to the rules, as alert levels changed, increased uncertainty and anxiety.

Isolation

Some of the participants described their early postpartum experiences in a secondary or tertiary maternity hospital, when their partners or whānau were unable to be present.

The bare necessities of care

Hospitals limited physical contact by hospital staff in order to reduce potential transmission. For some of the participants the limited contact resulted in their physical health needs not always being met. Alix explained her inability to provide care to her baby because of her physical condition following a caesarean birth.

On the ward, the care was not that great and I think there was a lot of "we're only coming to do what we have to, if you look fine and your catheter bag doesn't need changing, we probably don't need to come into your room right now". [Baby's name] was born early Saturday morning... and I remember Sunday morning and [a midwife] saying to me, 'how many wet nappies has she had?' And I said, 'well, I haven't changed her nappy once, so I don't know'. Then I felt stupid, of course she needed her nappy changed, but I didn't know where the nappies and all of those things were. I could hardly get out of bed, it was hard to lift her, all those sorts of things. But I think they were trying to limit their contact to bare necessities like your safety. [But] it made that part a little bit harder. (Alix)

The women explained that by the staff limiting physical contact, they perceived their physical and parenting needs were not being met.

On my own

Many of the participants felt that they were on their own, with nobody to provide the help they needed, or to help look after the baby.

So I think that was probably the first kind of COVID thing for us, I woke up in the dark at whatever time of day it was, on my own, with just this baby in a bed and no information and no recollection really of what had happened. (Alix)

Pascal explained how she was unable to look after herself due to her surgery but also that the hospital staff were extra busy.

...then I was given a room, [my husband] had to go right away. So it was really hard for me to take care of myself. I was just in and out of consciousness and I couldn't sit up and all that kind of stuff after surgery, it's pretty, it's pretty difficult. So I signed a waiver and I just discharged myself the next day. Yeah I had, I needed care. And you know, the nurses were busy as nobody's husbands were there. (Pascal)

Clarissa experienced a postpartum complication, and required surgery. She explained her distress on having to leave her baby.

So, I went in for surgery at about 1pm, and the baby had to go to the nurses' station. Because no one can be there. And so then I was put under general [anaesthetic] and when I got back to the ward they said, 'oh, the baby's hungry' and then

I was like, 'what?! I feel like I've just ran a marathon' and so then they said, 'oh, you have to feed' and then my milk wasn't in and it was all just, it was horrible. And then I said, 'where has the baby been?' ... Wasn't nice to know your baby was with God knows who, when it, [was] less than 24 hours old. (Clarissa)

The COVID-19 restrictions resulted in limited physical contact and interaction with hospital staff, and a disconnection from any physical or emotional support the partner may have been able to provide.

Released home

Women who have had a caesarean section usually remain in hospital for several days so that they can rest, have their post operation recovery monitored, and receive parenting support. Due to the limited practical help, some of the participants worked to secure their discharge as was the case with Brittany and Alix.

I buzzed in the midwife and she came in and I kind of asked what I had to do to get discharged and she ran me through it and said that ideally they'd want me to stay another night and that they, yeah there were a whole lot of things I had to tick off before and you know definitely not before the evening, they didn't want me discharged. So I asked again if, because of that, my partner could come back because I really wasn't coping. And they said 'no' and so at that point I just kind of, got determined to get myself discharged. (Brittany)

I remember waking up at 5 o'clock in the morning and being, 'you need to take my catheter out, I need to be able to go for a poo, I need to be able to tick off all of these things because I'm not going to be allowed to leave otherwise and I don't want to stay here anymore'. (Alix)

An ongoing emotional toll

Several women described how the separation from their partner and whānau in the hospital, during a time of extreme physical and emotional vulnerability, left an ongoing emotional impact.

It's really hard just to capture the emotional and mental toll of things ... I guess all of those moments that you don't have a support person that you need. And actually, you only get that chance with a new baby once and so not having that kind of support there on what's already a challenging journey at times I think is really, really hard. (Alix)

For some the postnatal experience continued to cause upset some weeks after the birth.

The bad thing is that I think that week, probably even though I am really quite happy and healthy now, it still really, really, it does lurk there.. Like I was driving to town the other week, I saw an ambulance and I burst into tears because I just all of a sudden think of that. (Bree)

... it was the separation from my partner that I found really hard. And I still try not to think about it because I actually get quite upset about it. Yeah, probably the hardest thing I've ever done. (Rebecca)

One participant explained how the emotional impact can also have a physical effect.

... being allowed support people in birth is seen as quite like, 'oh it's just women being emotional' but people don't realise how much your emotion and how comfortable you

are and how secure you feel actually really impacts the medical outcomes of birth as well. (Brittany)

The participants also identified the frustration their partners felt at being unable to provide any support or help.

I think for him seeing that that was taking a real physical and emotional toll on me and just having no ability to do anything or help really in any kind of practical way, was definitely the hardest. (Alix)

Having support from partners/family/whānau at a time of vulnerability appeared to be essential to the emotional, cultural and physical health of these women and their babies.

An undisturbed space

Participants described how the requirement for households to isolate was a positive aspect of the COVID-19 restrictions once they returned home following the birth. At this time they were required to stay within their own bubbles, with visitors restricted. This meant that they were able to learn about their baby in an undisturbed space.

Undisturbed by visitors

There is often a balance that needs to be struck between being able to share your baby with family/whānau and friends, whilst also having private time to get to know the baby. Our participants described the valued opportunity to rest and recover at home following the birth without needing to worry about other visitors. As Cara stated: *... it meant that we didn't have all these people rushing in to disturb me and my partner with him...*, with Courtney echoing this sentiment: *If anything it was actually quite nice to not have unexpected visitors every day.* Being undisturbed by visitors was considered positive, alongside the use of scheduled video chats so that family/whānau and friends could see the baby when it suited the parents.

I was really happy to video chat with my family and show her off because you know I'd had a brand new baby who was gorgeous and rosy cheeked and everything and I wanted everybody to meet her but I was glad that she wasn't being handed from person to person. (Pascalle)

Bond with the baby

The undisturbed space supported the parents to have time to get to know and bond with their baby. Brittany found it was nice *just being able to have heaps of time just mummy, daddy and baby*, and Cara identified the importance for her partner: *So [my partner] actually got to bond with the baby before he went back to work.*

Breastfeed in peace

For many of the women the restriction on visiting also appeared to be helpful when on their breastfeeding journeys, with Jaya saying: *I felt more rested than what I would have been, which is the only positive because when your milk comes in and you can feed your baby properly and you're not stressed out.* Participants explained that they could breastfeed without becoming stressed by being observed by others or by the interruptions visitors cause.

Yeah, I think that it was nice that I didn't have a million people coming around to see us because during, especially when I was having the troubles with breastfeeding, I think it would have been a million times worse with people coming over all the time. (Suzy)

The lack of visitors also meant not having to worry about how the house looked or whether there was food for the visitors.

It was really nice, not having to worry about state of your house or what food you had in the house because you were having visitors come round and learning to breastfeed. I didn't have to learn to be discreet if that's what you choose and that's what you want but I could just do whatever I wanted and learn the way I liked without any feedback from anyone. (Courtney)

The uninterrupted space supported the parents to learn about their baby, bond and breastfeed in a peaceful environment.

DISCUSSION

This study set out to explore women's experiences of their maternity care during the COVID-19 alert levels 3 and 4 lockdown periods in Aotearoa NZ. The findings provide an in-depth understanding of the experiences of the 17 participants. The participants described the importance of their relationship with their LMC midwife who was the main point of contact in the community, and able to provide advocacy, liaison and support between the woman and hospital services. This differs from other countries such as the UK, Australia and the United States (US). In the UK, during their periods of restrictions, there were substantial service changes with a 70% reduction in antenatal appointments, and a 56% reduction in postnatal appointments (Jardine et al., 2020). These service changes caused a number of unintended negative consequences with confusion over advice, along with distress and trauma (Sanders & Blaylock, 2021). A UK survey involving 1451 pregnant women, which explored perceptions of maternity care during the pandemic, found that virtual consultations were considered impersonal (Karavadra et al., 2020). Similarly, a survey of 388 people who gave birth in the US found that participants experienced insufficient physical and emotional support during their pregnancy and birth, with many also identifying loneliness, anxiety and stress (Breman et al., 2021). Likewise, in Australia, a survey of 3364 women's experiences of maternity care during the pandemic found that women felt distressed and alone due to the limited face-to-face contact with health professionals and other service changes (Wilson et al., 2021).

It would appear that the changes in service provision in Aotearoa NZ may have been mediated by the relationship women have with their community (LMC) midwife and the continuity of care these midwives provided. Crowther et al. (2021) examined relationships and social connectivity in the context of midwifery care in Aotearoa NZ and the COVID-19 pandemic, finding that the midwife was a major influencer and initiator for uninterrupted relational care at the frontline throughout the COVID-19 lockdown. Continuity of midwifery care is known to reduce interventions and increase maternal satisfaction with care, as well as increasing perceptions of trust, safety and quality of care (Fernandez Turienzo et al., 2021). It has also been found to moderate maternal stress during disaster events and improve infant neurodevelopment when mothers experienced disaster-related stress during pregnancy (Kildea et al., 2017; Simcock et al., 2018). Our study adds to this evidence by finding that continuity of midwifery care was important for the study women during the time of the pandemic and can moderate some of the distress and anxiety that restrictions in maternity care may cause.

Postnatal care in hospital

Restricting the presence of partners and whānau in the early postpartum period in hospital resulted in some of our participants not having their emotional, cultural and physical support needs met and, for some, led to early discharge home. This has also been identified in other studies. In the UK, Gray and Barnett

(2021) found that lack of the physical presence of others, who are significant to the woman, during the postnatal hospital stay was considered challenging. This was compounded when there was also a lack of face-to-face support from health professionals. Sanders and Blaylock (2021), in their UK survey, found participants were unhappy whilst in hospital due to restrictive visiting policies, and others identified feeling lonely, frustrated and upset by a lack of staff to help them care for their new baby. Silverio et al. (2021) argue that partners should not be excluded and should be deemed essential in all aspects of maternity care.

The safety of women and hospital staff underpinned public health decisions during the pandemic, with the need to restrict visitors to decrease COVID-19 transmission. It could be argued that the lack of staff in the postnatal wards, alongside restricted companion/whānau support may also decrease safety—clinically, emotionally and culturally for women and their babies—and may also result in an increase in emotional trauma. Emotional and mental trauma can have longer term effects on the woman's and her partner's health, the mother-infant bond, early parenting interaction and a longer term impact on child development and health (Fernandes et al., 2021; Lalor et al., 2021; Lebel et al., 2020). It is now well documented that the pandemic increased depression and anxiety in the general population, as well as in specific populations—such as pregnant and parturient women (Czeisler et al., 2020; Lebel et al., 2020; Masters et al., 2021). A Canadian study explored levels of anxiety and depression for pregnant women during the COVID-19 pandemic during April 2020, finding substantial increases in clinically relevant symptoms of depression (37%), and anxiety (57%) in their cohort of 1987 pregnant women (Lebel et al., 2020). A survey of women in the US found that participants experienced insufficient physical and emotional support during their pregnancy and birth, with many also identifying loneliness, anxiety and stress (Breman et al., 2021).

There were three wāhine identifying as Māori in our study and a key factor for Māori is holistic health. This involves the recognition of the wider network of support structures such as whānau, hapū and iwi that assist and provide support for them when managing their health (MOH, 2014). By restricting the involvement of whānau, both during and following the birth, maternity services may have inadvertently exacerbated health inequity for Māori. The government approach to the pandemic has been criticised as being a “one size fits all” model which did not address specific Māori needs (Pihama & Lipsham, 2020). Te One and Clifford (2021) argue that Tikanga Māori and Māori leadership should be positioned at the centre of decision-making within health so that they can lead responses in future pandemic situations. This means including Māori in future response planning, and utilising cultural, social and political frameworks that consider the needs of Māori as tangata whenua who, Te One and Clifford maintain, “experience daily the failure of the current health system” (p. 97).

Despite the transmission risks involved in pandemics there is a need to balance optimal public health alongside optimal support for women during maternity care.

In future lockdown situations and despite the risks involved in transmission, the role of the partner in the early postpartum period will need to be recognised as an essential support for women. There is a need to balance optimal public health alongside maternal support following birth. Partners and whānau are important to maternal emotional and physical support and parental transition. Improved staffing within hospital postnatal wards should also be considered essential to ensure the physical needs of women and babies can be met. In Aotearoa NZ, the long term implications of

the restrictions on pregnant and birthing women and new mothers have not been explored and are not yet fully understood. Further research is required to identify and address the negative impacts of this pandemic and to reduce harm from restrictions imposed during future pandemics.

The undisturbed space

Participants in our study identified how the pandemic allowed an undisturbed space once they were home with their babies. This supported breastfeeding and bonding without the interruptions of visitors. Wilson et al. (2021) in their Australian survey also found that some women described visitor restrictions as beneficial, with more time to rest, establish breastfeeding and bond with their baby. Similarly, Gray and Barnett (2021), in their semi-structured interviews with 10 first-time mothers, found having fewer visitors enabled more time to attend to their babies and more time with their partners. In the UK, a survey of 1219 breastfeeding women found that 41.8% felt breastfeeding was protected due to lockdown (Brown & Shenker, 2020), which enabled more time to focus, more privacy, an increased ability to feed responsively (infant-cued feeding) and greater partner support. Conversely, 27% of their survey participants struggled to get support when breastfeeding, with insufficient professional support being one of the most common reasons for breastfeeding cessation. Lack of face-to-face support postnatally at home was also an issue identified by Gray and Barnett (2021) and by Wilson et al. (2021) in their Australian studies. Gray and Barnett (2021) concluded that the common challenges often experienced by new mothers were amplified by the pandemic and lack of face-to-face support. The move to online health service provision during the early days and weeks following birth has been criticised, with findings that some services in the UK have yet to fully re-establish face-to-face care provision (Best Beginnings, Home Start, & Parent-Infant Foundation, 2021). A UK report on the impact of the pandemic health service restrictions on families found that many of the usual support services for parents and their babies were unavailable. It highlighted the risks associated with moving away from face-to-face service delivery, particularly for babies and young children.

The participants in our study identified the need to stay in their bubble during their postpartum care, with the community (LMC) midwife considered part of this bubble and continuing to provide midwifery care in the woman's home. However, we also found that face-to-face service delivery appeared to cease for our participants once midwives were no longer involved in their care. This resulted in a gap of services provision for women and babies at a vulnerable time. Some of the participants described midwives stepping into this gap when necessary to ensure continued monitoring of health for vulnerable mother/baby dyads.

STRENGTHS AND LIMITATIONS

This study has provided an in-depth exploration of 17 women's experiences of their maternity care during the first COVID-19 lockdown in Aotearoa NZ in March 2020. As such, it provides rich information about these women's perspectives of their care. Our participants, albeit self-selected, were geographically diverse but may not represent the fuller diversity of maternity services users in Aotearoa NZ. Results cannot be generalised to the larger maternity population.

CONCLUSION

For this cohort, midwifery continuity of care appears to have supported them and their families during the changes to care provision throughout the COVID-19 lockdown. Midwives were trusted health professionals who often went above and beyond to

fill gaps in health service provision, and ensure women's health needs were met.

Limiting partner and whānau access in the early postpartum period in hospital resulted in less emotional and physical support for women, and led to some choosing early discharge home. For some women there was an ongoing emotional impact from this time. Despite the transmission risks involved in pandemics there is a need to balance optimal public health alongside optimal support for women during maternity care. The woman's partner, or other primary support person, and whānau should be considered essential and should not be excluded from early postpartum hospital care.

ACKNOWLEDGEMENTS AND CONFLICT OF INTEREST DISCLOSURE

The authors acknowledge that we did not specifically ask our participants about their gender identity. Our use of the word "women" in this article therefore includes all pregnant people.

We would like to thank the women who generously shared their time and experiences to participate in this research. We also acknowledge and thank the midwives who made women aware of the study and the transcribers: Shoba Nayar, Allan Baddock and Annie Oliver.

The authors state that there are no conflicts of interest.

Key points

- Midwifery continuity of care continued during the COVID-19 pandemic lockdown but was adapted to minimise the risk of transmission.
- Postnatally, restrictions and separation from partners/whānau left some women feeling anxious, alone and eager to be discharged from hospital.
- Participants valued the continued relationship with their midwife, who supported them to have as positive an experience as possible.

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Accepted for Publication November 2022

Dixon, L., Jackson, T., Tamati-Elliffe, J., McCra-Couper, J., Griffiths, C., Miller, S., & Gilkison, A. (2023). Birth under restrictions: Exploring women's experiences of maternity care in Aotearoa New Zealand during the COVID-19 lockdown of 2020. *New Zealand College of Midwives Journal*, 59, 5-13

<https://doi.org/10.12784/nzcomjnl59.2023.1.5-13>

AOTEAROA NEW ZEALAND RESEARCH

Women's knowledge, attitudes and access to vaccines in pregnancy: A South Auckland study

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ABSTRACT

Background: In Aotearoa New Zealand pertussis and influenza vaccinations are available free-of-charge during pregnancy, although uptake varies between District Health Board areas.

Aims: This study was designed to assess the knowledge of, attitudes towards, and infrastructural access to, these vaccines for birthing people in an area of Auckland (Counties Manukau) where uptake has been low.

Methods: A mixed methods research design was used involving interviews (n = 7), two focus groups (n = 9) and a paper-based survey (n = 121). Interviews and focus groups were semi-structured and analysed using thematic analysis. The survey comprised of a 20-item Likert scale.

Findings: Participants displayed support for maternal vaccinations. Concerns remain regarding potential adverse effects. Awareness of the existence of vaccines in pregnancy is not universal, and 36% of survey participants were unaware that the vaccines are free-of-charge. Appreciation was expressed for trusted healthcare relationships within which people feel supported to make decisions about maternal vaccination, and for immunisation services that are easily accessible.

Conclusion: The research contributes to growing evidence on the significance of health professionals providing information about immunisation in pregnancy. Also highlighted is the importance of: culturally safe knowledge sharing; information being tailored to meet individual needs; and continuity of health and maternity care to facilitate that.

Keywords: Vaccinations, pregnancy, pertussis and influenza, health literacy, Aotearoa New Zealand

BACKGROUND

Over the winter of 2022 there was a surge in influenza cases in Aotearoa New Zealand (Aotearoa NZ). At the end of June 2022 there were reported to be around three times more people being admitted to Middlemore Hospital in South Auckland with influenza than with COVID-19 (Quinn, 2022). There was a specific increase in cases amongst children under the age of five (G. Jackson, personal communication, December 8, 2022). Since 2010, pregnant people have been eligible for fully funded vaccination against influenza. When administered in early pregnancy the vaccination confers immunity to the pregnant person, as well as to the newborn baby. Yet there is considerable variation in antenatal vaccine uptake rates across geographical areas and demographic groups (Howe et al., 2020). Within the Auckland metropolis (and prior to the disestablishment of the District Health Boards [DHBs]), antenatal influenza vaccination rates were lowest in the Counties Manukau Health (CMH) area in South Auckland (Waitematā DHB, 2022a). Maternal pertussis immunisation is

also available during pregnancy and is administered with tetanus and diphtheria coverage in the form of the Boostrix (Tdap – GSK) vaccine. Across the Auckland DHBs, antenatal pertussis vaccine rates have again been lowest within the CMH area (Pillay, 2019; Waitematā DHB, 2022a). This research study was designed to identify factors which support, and those which impede, uptake of these antenatal vaccinations in the CMH area, with a view to improving access to the vaccines.

In 2013, 11.2% of the pregnant population in Aotearoa NZ received the flu vaccine and by 2018 this figure had risen to 30.8% (Howe et al., 2020). Uptake of the pertussis vaccine amongst pregnant people rose from 10.2% to 43.6% in the same time period (Howe et al., 2020). Coverage is highest amongst socio-economically advantaged groups and those of older childbearing age (Howe et al., 2020). Associations between social deprivation and vaccine uptake are likely to impact particularly widely upon the South Auckland population, as over 35% of people in the area live in localities of high deprivation in socio-economic terms:

deciles 9 and 10 of the NZDep2018 Index (Jackson, 2021). The area is culturally rich and diverse. Sixteen percent of the population are Māori, 22% Pasifika, 29% Asian and 33% European/other (Jackson, 2021). Research indicates that Māori and Pasifika encounter more barriers to vaccination in pregnancy – including not being informed of the immunisations by their Lead Maternity Carer – than do Pākehā (New Zealand European; Duckworth, 2015). Given intersections of inequity, there is a strong social justice argument for the development of strategies which seek to actively facilitate equitable access to antenatal vaccines in South Auckland.

For disparities regarding vaccination in pregnancy to be addressed, research demonstrates the need for interventions to take into account the specific needs of the community being served (Kiefer et al., 2022). In Aotearoa NZ, strategies to achieve health equity are also uniquely shaped by Te Tiriti o Waitangi, therefore involving affirmation of tino rangatiratanga (self-determination) and commitment to *ōritetanga* (equity; Came et al., 2019, 2020). One of the overarching recommendations of the 2019 Hauora (Health) report of the Waitangi Tribunal is that “The Crown commit itself and the health sector to achieve equitable health outcomes for Māori” (Waitangi Tribunal, 2019, p. xv).

Evidence continues to accumulate to support the overall safety, as well as efficacy and effectiveness, of pregnancy flu immunisation (Naleway et al., 2014; Regan & Munoz, 2021). This is important because maternal infection over the perinatal period can lead to severe neonatal illness (Alexander-Miller, 2020) and stillbirth (Wang et al., 2021). In 2009 women in Australia and Aotearoa NZ were seven times more likely to be admitted to Intensive Care with H1N1 influenza if they were pregnant or postpartum, than were other women of childbearing age (The ANZIC Influenza Investigators and Australasian Maternity Outcomes Surveillance System, 2010). Maternal antenatal pertussis vaccination is associated with lower rates of pertussis infection in infants under 8 weeks old (Dabrera et al., 2015). Of the notified cases of pertussis in infants under 20 weeks of age in Auckland between April 2015 and March 2016, over 83% did not have mothers who were vaccinated against the disease in pregnancy (Reynolds et al., 2017). The risk of serious infection from the disease is particularly high for children under the age of 12 months (The Immunisation Advisory Centre, 2020).

Beyond macro-level social determinants, various factors have been shown to impact upon people’s decision-making around vaccines. A person’s individual pre-pregnancy vaccination behaviour is known to influence whether they decide to be immunised in pregnancy (Kilich et al., 2020). Belief that a particular vaccine is effective and makes a positive difference to health, tends to encourage uptake (Kilich et al., 2020). Perceptions that healthy lifestyles render vaccination unnecessary and that vaccines are ineffective, are amongst the rationales that people give for declining immunisation (Andre et al., 2019; Kilich et al., 2020). Fear of the risk posed by a particular disease can contribute towards vaccine uptake, whilst not necessarily ensuring uptake (Kilich et al., 2020; Young et al., 2022). Fear of the effects of a disease coupled with fear of adverse reactions or side effects of vaccination, can contribute toward indecision. In such situations the default effect may be no vaccination (Kilich et al., 2020; Meharry et al., 2013). Healthcare providers are also known to play a pivotal role in facilitating access to vaccination in pregnancy. In an Aotearoa NZ survey, the most common reason people gave for not having the flu vaccine in pregnancy was that they had not received information on the vaccination (Andre et al., 2019). According to a recent systematic review and meta-analysis of research on factors influencing pregnant women’s vaccine decisions, the likelihood of maternal

influenza or pertussis vaccination in pregnancy is 10-12 times higher amongst pregnant women who were recommended the vaccination by a healthcare professional than amongst those who were not (Kilich et al., 2020). Organisational processes are also important. An audit of pregnancy immunisation practices in two areas of Aotearoa NZ demonstrated higher pertussis vaccination rates in the locality where the work of different healthcare providers was effectively integrated to bring “vaccination to the community”, rather than requiring women to go “to the vaccine” (Deverall et al., 2018, p. 45). Recent research on access to early maternity care also acknowledges the convenience of people being able to see multiple practitioners – such as a general practitioner (GP) and a midwife – at the same clinic visit (Priday et al., 2021).

METHODOLOGY

In this research a mixed methods approach was adopted, including individual interviews, focus groups and a paper-based survey. Research participants resided in the CMH catchment area and were either pregnant at the time of data collection or had given birth to a live baby within the previous 12 months. The research started with a paper survey deployment in November 2019 and concluded with individual interviews which ended in June 2020. All participants were conversant in English and over 18 years of age. Participation in the research was entirely voluntary and the study received ethical approval from Auckland University of Technology Ethics Committee (AUTEC: reference 19/334).

Recruitment for the individual interviews and focus groups was supported by local midwives and GP practices who circulated and/or displayed information about the research project. The focus groups enabled a larger number of women to participate in the research than would have otherwise been the case and provided an environment in which participants could talk together about their experiences and viewpoints in a more collective manner. Including these group-based discussions within the research design provided space for childbearing people who might not feel comfortable participating in one-to-one interviews or completing a survey, to have their voices heard. The focus groups were organised and convened by Māori research team members who know and/or work in the CMH area. Both the focus groups and the individual interviews were conducted on a semi-structured basis and covered the same broad subject areas: participants’ knowledge of, perspectives on, and access to, pregnancy vaccinations. Seven individual interviews and two focus groups (one with four participants and the other five) were carried out. Participation was voluntary, and this was emphasised in both the participant information sheet and the participation consent form. The privacy and confidentiality of participants were protected through a range of mechanisms, including exclusion from the write-up of participants’ names and other identifying features. Qualitative data were analysed using thematic analysis as inspired by the work of Braun and Clarke (2006). Transcripts were read by two research team members and emergent codes assigned and themes identified. Another member of the team read the transcripts to assess the accuracy of the codes assigned. A fourth researcher was involved in analysing patterns within and across the data, and in identifying broader themes. Throughout the process there was ongoing discussion between team members, and at different stages transcripts were revisited to assess the accuracy of the emergent analysis.

The survey design was inspired by that of the SHOTS survey, which is a research tool developed in the United States by Niederhauser (2010), aimed at measuring the barriers parents experience with respect to the vaccination of their children. SHOTS has been

shown to have good reliability and validity (Baker et al., 2010; Niederhauser, 2010; Niederhauser & Ferris, 2016), yet could not be used in this study due to its focus upon childhood vaccination and its dependence upon US terminology. The survey developed for this study was specifically designed for the Aotearoa NZ maternity care context and was exclusively concerned with vaccination in pregnancy. It took the form of a self-completion questionnaire comprising a 20-item, 4-point Likert scale. Respondents were presented with a list of statements describing potential barriers to vaccination – e.g., “I did not know where to get my pregnancy immunisations done” – and were asked to indicate the extent to which they agreed or disagreed with these statements on a scale of 1 (*disagree strongly*) to 4 (*agree strongly*). The lower the score a participant gave for a specific item, the less operative that barrier was deemed to be for them.

The survey was distributed at childbirth education classes along with information about the questionnaire, including a clear statement that participation in the survey was voluntary. Information which might enable participants to be identified – such as name or demographic details – was not collected. In total 122 pregnant people completed the survey. Survey results were entered from paper form into IBM SPSS Statistics 28 (Version 1.0) software and cleaned to ensure data were characteristic, correct and sensible. This process removed one participant’s survey results, yielding 121 surveys for analysis. Where there were missing or neutral data (2 numbers answered across agree and disagree choices) the missing data were replaced with the item mean as per Niederhauser (2010).

FINDINGS

Interviews and focus groups

Research participants identified with a range of ethnic groups. In terms of “prioritised ethnicity” classification, participants’ ethnic groups included Māori, Samoan, Tongan, Pasifika and Indian. Not all participants offered information on their ethnic identity.

Given the controversial nature of vaccination decisions, interview and focus group questions were focused on the feelings and knowledge that participants had around pregnancy vaccinations, rather than upon whether they had actually been vaccinated whilst pregnant. Over the course of the discussions many participants nonetheless shared information of that kind. The majority spoke of having had at least one vaccine whilst pregnant. Some indicated that they had not been immunised in pregnancy for both flu and pertussis. One spoke of actively declining vaccines in pregnancy.

Attitudes and perspectives on vaccination in pregnancy

Participants in both the individual interviews and the focus groups expressed a range of views and perspectives on vaccination in pregnancy, and many were supportive of vaccination. A prevailing theme, not least in the accounts of those who had been immunised in pregnancy, was that of protection. Vaccination was frequently described as a mechanism of protection for their babies (both before and after birth) and themselves. Statements such as *That’s to protect you and the baby* or *It’s kind of protection for both you and your baby* were typical. In addition to using the language of protection, research participants spoke of maternal vaccines in terms of risk and the minimisation of disease. Such emphasis overlapped with, but was also subtly different from, that of protection as the focus was upon illness and the potential negative effects of illness rather than upon protection per se. This was exemplified in the words of a participant who spoke of being aware of people who had *made their babies sick with whooping cough and of being terrified* of doing the same (16).

Desire to protect a baby and to prevent disease did not entirely guard against fear of vaccination. Participants’ concerns regarding vaccination included fear of needles and of serious adverse reactions. Some considered vaccination *a have to, a must or a priority*, yet even amongst those for whom vaccination was highly normalised, perspectives were not entirely linear and straight forward. There were examples of scepticism towards a particular vaccine (rather than vaccination in general) and of anxiety specifically around vaccination whilst gestating. Occasional references were made to cultural, spiritual and/or family beliefs that pregnancy is not an appropriate time for vaccination. People who self-identified with the same ethnic group did not necessarily share the same views on vaccinations.

Knowledge of vaccination in pregnancy

Various interviewees spoke of being unaware, until they themselves were pregnant, that vaccinations are available in pregnancy. Some thought that only one vaccination (pertussis or influenza) was offered, and not all were aware that the pertussis vaccine also provides coverage for diphtheria and tetanus. It was through health professionals (especially midwives, GPs and practice nurses) that many had first learned about pregnancy vaccines. They spoke of such information being given to them verbally as well as through official pamphlets and documentation. Views regarding the quality of that information varied. At one end of the spectrum health professionals were described as providing effective explanations of what pregnancy vaccines are and how they work. At the other end of the spectrum they were depicting as simply saying: *you have to get your flu vaccination, you have to get your whooping cough vaccination* (FG2). Although research participants were conversant in English, the word “vaccination” was not necessarily familiar to them. At least one interviewee understood the word “immunisation” in lieu of “vaccination” and indicated that they did not necessarily understand when midwives used scientific terminology. Learning how vaccines work was a relevant step in supporting some people in their uptake of vaccinations. In this regard, the specific ways in which health workers shared information were important. On the basis of their own experience, one participant – who felt that information delivery by health workers could be improved – surmised that: *If you’re not really health literate or confident to look up this information yourself, then, I guess that’s where the gaps are* (FG2).

A number of research participants spoke of embarking upon their own research to learn about maternal vaccinations, not least when they felt they had received insufficient information from a health professional. The process of doing such research tended to involve seeking information and stories from a range of sources, including TV, documentaries, books, friends and family. The internet was commonly referred to, although participants often expressed concern and caution about online sources. Some spoke of encountering views on the internet that made them feel anxious, angry and/or contributed confusion to their decision-making. They spoke of turning to health and maternity carers for clarification on particular points. Those health professionals with whom participants already had a trusting relationship were considered especially important in supporting their decision-making and in helping them work through associated anxieties:

I think it did help a lot with me really knowing my midwife and having a lot of trust in her to go get it, yes, and being comfortable with the doctors and my doctors because we’ve been there for years... so they know me, and I’m guessing, I guess I trusted that if it was bad for them they wouldn’t give it to me. Yes. (17)

Anything she [the midwife] recommended, especially um with the, you know with the benefits of ah health wise, to keep baby safe, I just went, went for it. As long as I trusted her Even with this pregnancy my midwife has been really good and whatever she's recommended I've just gone with it. Because I trust that she, she's looking after me. (FG1)

... my family doctor has been my family doctor for... how old am I? 32. Seventeen years so. I trust his opinion greatly. And yeah I guess I base my decisions on a lot of things but definitely what I'm told by my medical people that I deal with ... I would trust that they will give me correct information. (I6)

Suggestions for improvement, with regards to the sharing of information, included the development of day-long workshops or education days where parents could gather together, talk and learn collectively: *for me I like that personal kind of way of learning (FG2)*. It was also suggested that information could sometimes be shared *in a more culturally appropriate or in a cultural way (FG2)*, and that the organisation of wānanga (seminars) would be one way to achieve that. In the words of a wahine (woman) Māori participant, *getting... Māori together to do a wānanga on the same day at the same time ... that would be something that I know a lot of Māori would be open to. Being in an environment where they could ask questions ... (FG2)*. The same participant added: *Maybe that would be a little better across the board for all different cultural groups*. Another member of the focus group developed the discussion further, indicating the benefit of collective environments where people would not feel judged for their contributions and questions:

Like and even if there is that option of putting, not putting, wrong word [sic], and where people from specific cultures could gather to discuss the issues: it would allow mums to be more comfortable yeah that common ground, cultural wise and "Oh yeah she's going through what I'm going through ..." (FG2).

The idea of making a video or audio-visual aid depicting mothers' and parents' experiences of, and rationale for, up-taking pregnancy immunisation was also put forward. So too was the possibility of having attractive information posters in waiting rooms.

Infrastructural access to pregnancy vaccinations

Few participants mentioned having difficulties, once they were aware of the immunisation schedule, in physically accessing the vaccines. The primary exception was when Aotearoa NZ was experiencing a national shortage of flu vaccines. Pregnancy vaccines were described as being administered in a range of localities and by various practitioners, including GPs, practice nurses, pharmacists and at antenatal clinics. Participants appreciated the convenience and familiarity of being vaccinated in localities and centres with which they were familiar and that they frequented for other reasons. As one explained: *That was helpful. Just having everything in the same building yes my midwife, my GP there, everything was, just the chemist there, everything was right (I1)*.

There were examples of people being able to combine vaccination with a midwifery antenatal appointment and of enjoying the convenience of having both vaccines administered on the same day, as these participants explain:

I was actually with [name of midwife], and I just went over to the nurse's room and she gave me the injection ... I just went back to see the midwife afterwards... so I just went over and got it done. Right, right, with one stone yes. (I7)

I didn't have any problem, I got all the information from both my GP and my midwife and I was fortunate enough to get both the vaccines done on the same day ... (FG2)

Concern was expressed that people continue to be unaware that pregnancy vaccines are free-of-charge, and that not all have good infrastructural access to the vaccines. Suggestions for improvements in this regard included the development of a mobile vaccination team focusing upon pregnant women and whānau (family). More widespread advertising of the fact that the flu and pertussis vaccines are free-of-charge during pregnancy was recommended.

Survey analysis and results

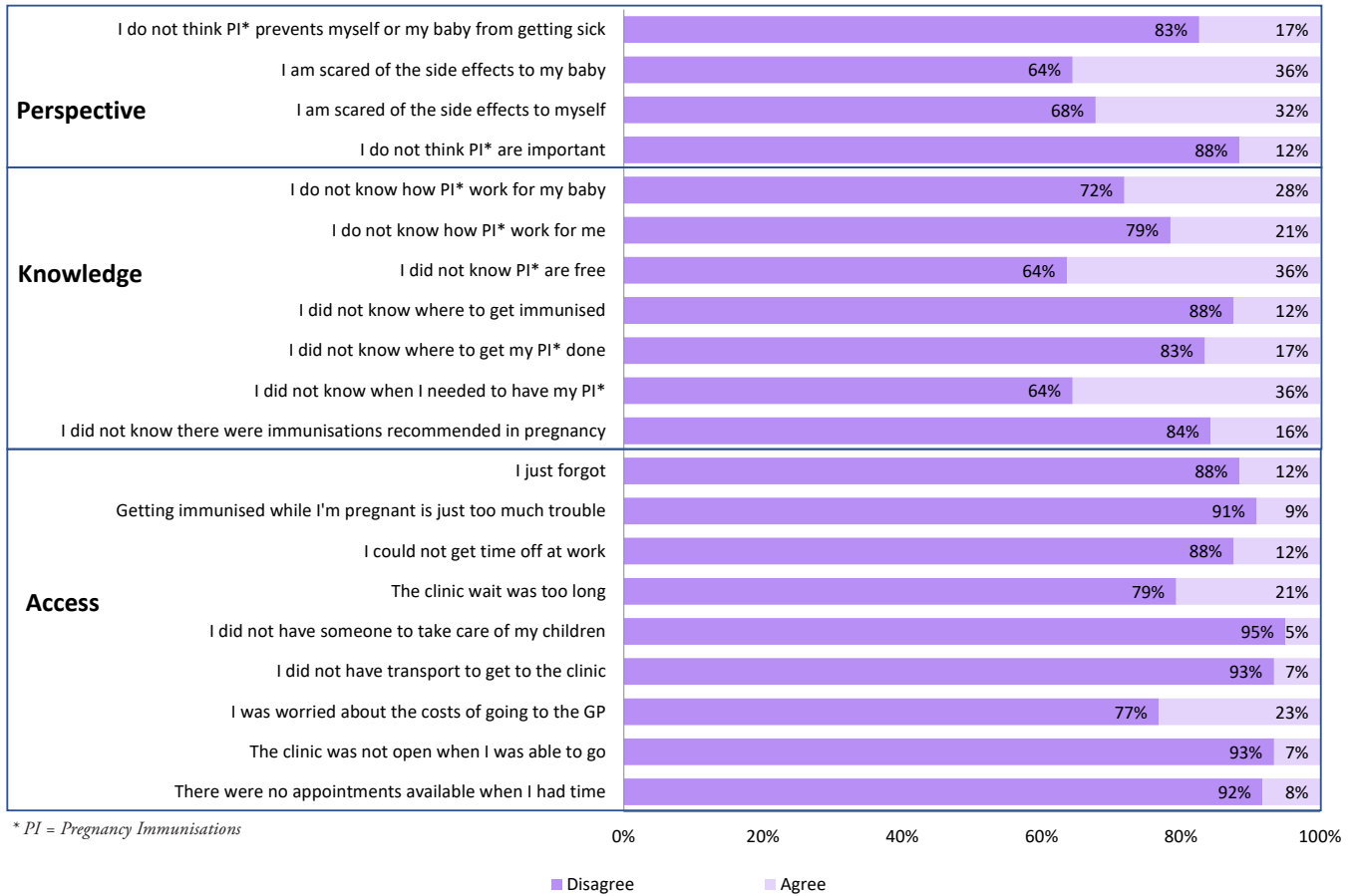
The survey was designed to complement qualitative data obtained through the interviews and focus groups. The reliability index for the survey was high (Cronbach alpha = 0.934). To simplify reporting findings, data were dichotomised (Figure 1) from the 4-point Likert scale. *Strongly disagree* was collapsed into *disagree* and *strongly agree* was collapsed into *agree*. Each of the survey questions was a statement which described the operation of a particular barrier; consequently, the survey items were collapsed into one of these three barriers: perspectives, knowledge and (physical/infrastructural) access. The grouped survey questions had high reliability with a Cronbach alpha of 0.873, 0.910, and 0.871 for Perspectives, Knowledge, and Access, respectively.

Perspectives: As illustrated within Figure 1, respondents' perspectives on maternal immunisation were generally supportive of vaccination: 88% disagreed with the statement "I do not think pregnancy immunisations are important", and 83% disagreed with the statement "I do not think pregnancy immunisation prevents myself or my baby from getting sick". Notwithstanding this, over a third of respondents (36%) agreed that "I am scared of the side-effects to my baby" and 32% that "I am scared of the side-effects to myself".

Knowledge: Within the Knowledge questions, well over a third agreed "I did not know pregnancy immunisations are free" (36%) and "I did not know when I needed to have my pregnancy immunisations" (36%). Slightly less agreed with statements regarding knowledge of how vaccines work in the body. This is illustrated by the fact that 28% expressed agreement with the statement "I do not know how pregnancy immunisations work for my baby" and 21% with the statement "I do not know how pregnancy immunisations work for me".

Access: Overall, the statements with which the lowest proportion of respondents expressed agreement were within the Access questions. These included "I did not have someone to take care of my children" (5%) followed by "I did not have transport to get to the clinic" (7%) and "The clinic was not open when I was able to go" (7%). Yet, of note within this category, there was moderate agreement for the following statements: "The clinic wait was too long" (21%) and "I was worried about the costs of going to the GP" (23%).

The survey responses for these themed groups were expressed as means and standard error (SE). A low mean score (≤ 2) indicated less than 50% of participants disagreed that significant barriers existed for that theme. A group's higher mean score (> 2) was interpreted as more than 50% of respondents expressed that significant barriers existed. All mean (\pm SE) scores revealed the three groups were generally low (1.86 \pm 0.073, Perspective; 1.83 \pm 0.069, Knowledge; 1.58 \pm 0.048, Access). This can also be visualised in Figure 1, where the frequency of agreement or disagreement for individual questions is shown.



DISCUSSION

Barriers to having maternal vaccinations were not strongly observed in the perspectives of research participants. This was demonstrated by the high levels of disagreement with survey statements which positioned pregnancy immunisation as unimportant (88%) or ineffective (83%). Support for vaccinations was especially apparent in participant descriptions of pregnancy vaccination as a form of protection: protection for the baby (both in utero and postnatally) and for the mother. Notwithstanding this, both the survey and interview data indicated the existence of fear amongst childbearing people of adverse reactions and/or of potential vaccine side-effects. Support for vaccination in pregnancy clearly operates in conjunction with concerns about the process.

In this regard the research adds to the body of existing literature which highlights the crucial role played by health professionals in facilitating uptake of immunisations (Andre et al., 2019; Kilich et al., 2020). Health workers, such as midwives, nurses and GPs, are uniquely situated to inform people that antenatal vaccines exist, how they work, and that they are free-of-charge. Given the amount of misinformation on vaccination, participants spoke of feeling particularly confident with information shared with them by health professionals whom they had known – and developed trust in – over months or even years. In this regard continuity-of-care arrangements provide an experiential basis upon which patients feel particularly able to trust in the knowledge of their caregivers. Also highlighted is the importance of knowledge around vaccination being shared and discussed within supportive, culturally safe forums, including wānanga. Culturally safe spaces for health provision and knowledge sharing can be created by those

that deeply understand and engage with the culturally specific traditions and practices of those for whom they are providing the service (Fleming et al., 2020; Gott et al., 2022)

It is testimony to the work already carried out by CMH workers to improve the institutional infrastructure which brings immunisation to people, that relatively few survey respondents considered getting immunised in pregnancy to be “too much trouble”, forgot to uptake the vaccines or saw clinic opening times/childcare/transport to be barriers. Participants were particularly appreciative when health workers actively facilitated the making of vaccine appointments; when two vaccines could be administered at one appointment; and when midwifery services were provided at GP clinics offering vaccination. This finding supports wider research demonstrating that integrated healthcare can considerably increase vaccination rates (Deverall et al., 2018). As not all pregnant people in South Auckland access antenatal care, the potential benefits of outreach maternal vaccination services should not be underestimated.

People in South Auckland are already talking about maternal vaccines as a way of protecting their babies. Educational narratives and initiatives which further build upon the language of protection are therefore likely to have particular resonance within the area. Such emphasis is congruent with the broader public health suggestion that centring notions of “protectiveness” – as well as information on vaccine safety – may be more beneficial than highlighting “disease threat alone” (Kilich et al., 2020). There is also resonance here with the research finding set out in a recent report around vaccination in childhood, in which Māori Māmā identify as “kaitiaki for our tamariki” – guardians/protectors for our children (Brown et al., 2021, p.1). Focus upon health and protection is congruent with approaches to healthcare

which emphasise building upon community strengths rather than assumptions of deficit and risk.

As changes around antenatal vaccination are introduced and consolidated, future research carried out in partnership with local communities will be well situated to consider how whānau and communities respond and adapt to new developments.

LIMITATIONS OF THE STUDY

The views and experiences of people who most face barriers to pregnancy services may be under-represented in this research, particularly as the survey component of the study was conducted with individuals already accessing childbirth education classes. The study did not explore the topic of COVID-19 vaccination. On the basis of current data, however, it is known that between 2019 and 2021 pertussis vaccination rates in pregnancy rose slightly on a year-by-year basis in Counties Manukau: 41.5% (2019), 42.2% (2020) and 42.6% in 2021 (Waitematā DHB, 2020, 2021, 2022a). The antenatal influenza vaccine rate in the area was 37.0% in 2019, 43.9% in 2020 and had dropped to 34.4% in 2021 (Waitematā DHB, 2021, 2022a, 2022b). One feasible explanation for the drop in 2021 is that, as concern over COVID-19 grew and COVID-19 vaccination became available, public concern about influenza fell (whilst vaccination against whooping cough nonetheless remained a consistent priority).

CONCLUSION

This research contributes to growing evidence that health and maternity care workers, including midwives, are crucial vectors of information about antenatal immunisation. Added is the insight that information and support around vaccine decision-making from health professionals whom people already know and trust, can be particularly effective. This finding highlights the importance of relationships within primary and maternity care, and is evidence in support of the Aotearoa NZ “continuity of care” model of midwifery, especially when well integrated with broader aspects of primary healthcare. The study further underscores the need for culturally safe information sharing which is optimally facilitated by trusted and known community members. Scope remains for ensuring that communities are aware of the fully funded status of vaccines in pregnancy within Aotearoa NZ.

Key points

- Health and maternity care workers, including midwives, are crucial vectors of information about antenatal immunisation.
- Information and support around vaccine decision-making from health professionals whom people know and trust, can increase immunisation uptake.
- A well integrated primary health and maternity care service is important in increasing access to, and knowledge of, vaccine provision.

ACKNOWLEDGEMENTS AND CONFLICT OF INTEREST DISCLOSURE

The authors would like to thank Middlemore Clinical Trials and Kidz First Children’s Hospital, who provided funding for the research project through a grant to the lead author.

The authors declare that there are no conflicts of interest.

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Accepted for Publication January 2023

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AOTEAROA NEW ZEALAND RESEARCH

Uncertainty and flexibility: Midwifery students' experience during the COVID-19 pandemic in Aotearoa New Zealand

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ABSTRACT

Introduction: The initial COVID-19 lockdown in Aotearoa New Zealand (Aotearoa NZ) in 2020, likely resulted in significant disruption to maternity care and midwifery education. Therefore, we asked the question, “What was the experience of student midwives studying and providing maternity care during the COVID-19 pandemic in Aotearoa NZ?”

Aim: Our aim was to explore the impact of the 2020 lockdown phase of the COVID-19 pandemic for student midwives in Aotearoa NZ.

Method: This qualitative descriptive study used semi-structured interviews to explore the impact of alert levels 3 and 4 COVID-19 lockdowns in 2020. Inductive thematic analysis was used to identify codes and generate themes and sub-themes from the interview transcripts.

Findings: Seven midwifery students described their experiences from which two overall themes were identified. The first of these was **Uncertainty** in which participants described insecurity, loss of control, isolation and constant worry. On the positive side they described **Flexibility and Resilience** – the ability to be flexible as they moved to more frequent use of online platforms, which provided connection with their peers; and resilience where the pandemic was considered beneficial by some for the future as it built their ability to face unanticipated challenges in their midwifery practice.

Conclusion: During a pandemic, anxiety, isolation and insecurity are common and our participants felt additional institutional support for student midwives was required. We concluded that it is essential to acknowledge the anxiety and individual needs of all students and check in with them regarding their physical and mental wellbeing. Setting up online platforms and facilitating connections between tutors and peers may provide more structural support.

Keywords: COVID-19 pandemic, lockdown, midwifery student, education, maternity care

INTRODUCTION

The COVID-19 viral illness, or severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) illness, is a global pandemic that has caused widespread mortality and morbidity and will continue to threaten human health into the future. Countries have responded in various ways to reduce, contain or eliminate the virus and to lessen the impact on population health and health services. The focus of the response has varied but most countries have relied on minimising social contact, maximising the health service response, and the identification and contact tracing of cases.

The COVID-19 lockdown was part of the Aotearoa New Zealand (Aotearoa NZ) response to the pandemic, given the absence of a vaccine at the time, and sought to reduce community spread of the disease and limit the impact on the health system. In Aotearoa NZ, the announcement of the settings of alert levels 3 and 4 in March 2020 resulted in widespread health and education service

changes designed to reduce the spread of the virus. As disease transmission increased, so did restrictions and alert levels. The highest alert level (4) was announced to commence midnight 25 March and involved community-wide containment with households under “lockdown” and the whole country required to isolate at home. The only exceptions were essential services and essential workers. Alert level 4 necessarily caused disruptions and limitations which affected maternity workers and students. Restrictions within maternity included limiting the number of support people in maternity facilities and the wearing of Personal Protection Equipment (PPE). In education services, disruptions included stopping face-to-face learning and transitioning to online forms of teaching.

During COVID-19 alert levels 3 and 4, restrictions within the maternity service included limited physical access to direct antenatal care (precipitating a move to telehealth), limited access

to the maternity hospitals and restrictions on support for women/people during labour, birth and postnatally. During this time there was limited or no access to education campuses, simulation/practice skill development and clinical placements. The education of midwifery students was moved online for those who were not already engaged in blended learning.

This paper is part of a wider study exploring the experience of the Level 3 and 4 lockdown phases of the COVID-19 pandemic for women/people who were pregnant, giving birth and managing the early days and weeks of parenting, along with the experience of midwives and midwifery students providing maternity care at that time. In this current study, we explored the experience of midwifery students during the lockdown when little was known about the impact of the pandemic response on the education of student midwives. Therefore, the aim of this study was to determine how the initial lockdown phase of the COVID-19 pandemic affected student midwives in Aotearoa NZ.

LITERATURE REVIEW

A narrative literature review was seen as the most appropriate review process for identifying the subsequently published studies and contextualising this research. It provides a platform for a comprehensive examination of the literature and an analysis of the emerging patterns. It was only as the pandemic unfolded post 2019/2020 that research was undertaken and a body of knowledge developed about the experience of student midwives during this time. The literature reviewed focused only on the experience of student midwives studying and providing maternity care during the COVID-19 pandemic initial lockdown and the impact on their learning and clinical placement opportunities.

The key words used in the literature search were: midwifery, students, COVID-19, midwifery pre-registration education, midwifery degree, midwifery student, midwifery clinical placements, and pandemic. The search was limited to studies conducted between 1 January, 2020, and 31 January, 2022. Key and relevant grey literature sources, including social media, were also searched and assessed as credible sources, due to their relevance to the topic. Databases searched included Medline, EBSCO, JSTOR, CINAHL, Scopus, Web of Science, and Google Scholar. Using the key words in different search engines resulted in approximately 200,000 sources of literature but when midwifery/midwife and then student were added, the relevant literature was reduced significantly. Articles were excluded if they did not include midwifery students in the population studied.

Nine publications were included in the review, 6 of which are peer reviewed research, 1 newsletter, and 1 blog site (2 blogs). Blogs are a rich source of data as they capture experience in real time. The insights offered by these blogs published on the all4maternity.com website and in their Student Midwife journal can now be put alongside the research that was carried out later. The literature included in the review comes from midwives, student midwives, midwifery policy advisors, midwifery educators and two newly qualified midwives as shown in Table 1. The literature reviewed presents the pandemic as both a challenge and an opportunity.

Communication

Modes and methods of communication and connection were some of the challenges faced by staff and students alike during the pandemic. The ability of organisations to respond to these challenges impacted either positively or negatively on students'

Table 1. Literature reviewed

Title	Year	Authors and country	Type of literature	Place published
Supporting Students' Practice Covid 2020: What are the fears for the Third-year Midwifery Student Cohort?	2020	Hoggarth, T. United Kingdom	Blog	all4maternity.com The Practising Midwife
Covid-19 Special Report: What about the Future? Holding on to our Philosophy of Care	2020	Lai-Boyd, B. United Kingdom	Blog	all4maternity.com The Student Midwife
Exploring the STEP-up to practice: A survey of UK Lead Midwives for Education views of the Student midwife Extended Practice Placement during the first wave of the COVID-19 pandemic	2021	Cooke, A., Hancock, A., White, H., Clark, N., Gibb, F., McNeill, J., Thomas, G., Lloyd, C., & Furber, C United Kingdom	Peer reviewed journal article	Midwifery
The psychological effects of working in the NHS* during a pandemic on final-year students: part 1	2021	Kane, C., Rintakorpi, E., Wareing, M., & Hewson, D. United Kingdom	Peer reviewed journal article	British Journal of Nursing
A cross sectional study of midwifery students' experiences of COVID-19: Uncertainty and expendability	2021	Kuliukas, L., Hauck, Y., Sweet, L., Vasilevski, V., Homer, C., Wynter, K., Wilson, A., Szabo, R., & Bradfield, Z. Australia	Peer reviewed journal article	Nurse Education in Practice
Clinical nursing and midwifery education in the pandemic age	2020	Lazenby, M., Chambers, S., Chyun, D., Davidson, P., Dithole, K., Norman, I., & Tlou, S. United States, United Kingdom, Australia	Peer reviewed journal article	International Nursing Review
Midwifery education in COVID-19 time: Challenges and opportunities	2020	Luyben, A., Fleming, V., & Vermeulen, J. United Kingdom, Belgium	Peer reviewed journal article	Midwifery
Learning throughout the storm	2021	Nash, K., Zanchin, C., & Legge, T. United Kingdom	Peer reviewed journal article	British Journal of Midwifery
Student experiences of COVID	2021	Wilson, C., & Lloyd, C. United Kingdom	Newsletter	Midwives

* National Health Service

learning and clinical experience. For example, in the transition to online learning, Handley-Stone (2021) identified the challenge for midwifery students in the United Kingdom (UK) of maintaining connection during the pandemic and that they needed a greater sense of community and improved communication during this time. Similarly, Kuliukas et al. (2021) carried out a cross-sectional study of midwifery students' experiences of COVID-19 in Australia which showed that too often communication from universities and hospitals was confusing and inconsistent, with students relying on each other and social media to keep themselves up to date.

Midwifery way of working

In some areas, where the midwifery model of care or ways of working were restricted, there was an additional source of stress and anxiety for some midwives and students. Lai-Boyd (2020) explored the challenge of holding onto the midwifery philosophy and midwifery way of providing care during the pandemic and uncovered a confusing picture of changing guidance emerging in the UK, which resulted in a number of services, such as water birth and homebirth, being withdrawn as options. This added to the stress where midwives felt unable to provide optimal care during the pandemic (Lai-Boyd, 2020). Lai-Boyd's research in turn led to a survey by Kane et al. (2021) who explored the psychological effect, of working during a pandemic in the NHS, for final year students. The study showed that student midwives had higher levels of stress or burnout than did nursing students. Kane et al. (2021) suggest that this may corroborate with other research which shows a high level of psychological distress in midwives when they are prevented from practising to the standards expected of them.

Anxiety

Anxiety is a common finding internationally due to the challenges of the pandemic. Hoggarth (2020) highlights the anxiety of final year midwifery students in the UK, as they worry about their midwifery experience and being able to register. This includes both anxiety while waiting to go on placement and anxiety about going on placement during the pandemic (Kane et al., 2021; Nash et al., 2021). When students were on clinical placement, they often felt they were not valued for the contribution they could make and were excluded; or there was confusion about their supernumerary status (Kane et al., 2021; Kuliukas et al., 2021). Students spoke of feeling an obligation to work on the front line during the pandemic, along with feelings of anxiety before starting placement and significant anxiety once deployed (Kane et al., 2021).

For many students, their anxiety was related to the confusing and rapidly changing picture. There was uncertainty when being asked to perform roles and tasks outside their comfort zone, less supervision, getting behind in studies, a feeling of "what next?", losing confidence and clinical skills, adapting to online learning, and increased family, financial and employment obligations (Hoggarth, 2020; Lai-Boyd, 2020; Wilson & Lloyd, 2021). Luyburn et al. (2020) saw the biggest challenge during the pandemic as being how to provide the clinical hours without the students suffering any time or financial penalties.

Some of these challenges were compounded by the fact that, in some countries, a change to online learning was completely new. Midwifery education had always been provided face-to-face (Luyben et al., 2020). The confusion and uncertainty were not helped by the fact that the approaches taken by education and clinical providers within cities and across countries ranged from complete closure to business as usual. Another layer of anxiety was added by the variable, or lack of, access to PPE when students were able to go to clinical placements (Kuliukas et al., 2021; Luyben et

al., 2020). One of the biggest challenges was the ongoing health and wellbeing of students and academic staff and one in five students felt more anxious or depressed than before COVID-19 (Luyben et al., 2020).

While there were many challenges, there were also opportunities, such as: learning to cope with stress and uncertainty, feeling and being part of a team, opportunities to learn and develop skills that were not usually available leading, in turn, to personal development and increased resilience (Nash, 2021; Wilson & Lloyd, 2021). Importantly, the sudden disruption and uncertainty caused by the COVID-19 pandemic changed the way that midwifery education was delivered and impacted students' clinical placements. This literature review has indicated the experience of some other countries' student midwives. We felt it was therefore important to explore the experience of midwifery students in Aotearoa NZ during the initial levels 3 and 4 lockdown phases of the pandemic.

METHOD

A qualitative descriptive method was used to explore the experiences of student midwives who were current students in a midwifery programme at the time of the 2020 levels 3 and 4 lockdowns in Aotearoa NZ.

Midwifery students were invited to participate in a one-on-one interview about their experiences. The study invitation was sent via the New Zealand College of Midwives Facebook page and 16 students responded. All were sent participant information sheets. Inclusion criteria were: being a current midwifery student in Aotearoa NZ, over the age of 18, able to speak and read English, and having access to computer/internet services. Midwifery students who met the inclusion criteria were invited to participate. Twelve recipients requested a consent form and seven of those signed and returned these. These became the seven interviewees.

Ethical approval for this study was received from AUTECH 20/147 Birth in the Time of COVID-19 in Aotearoa New Zealand.

Data collection

All data collection was undertaken virtually (via Zoom or similar audio/visual technology), and semi-structured interviews with students were conducted by one or other of the research team who were not midwifery educators. If Māori students wished to be interviewed by one of the team who was Māori, this was offered at the time of setting up the interviews. An interview guide was used to support the conversations and elicit fuller responses as necessary (Table 2). The questions included demographic details, changes resulting from the COVID-19 lockdown, and the impact of these on midwifery students.

The interviewer used further questions to elicit fuller responses as necessary.

Interviews were recorded, password protected and transcribed. All names have been changed to pseudonyms (chosen by the students themselves, the research interviewers, or by the lead transcriber), to support their anonymity. Any identifying details have also been removed.

Analysis

Data were analysed thematically, guided by Braun and Clarke (2022). AG, JM and TJ read and individually began to code the student interview transcripts, then met several times to agree on the codes and the themes, which were then discussed with the wider research team. Themes were re-examined and further refined, before being re-checked against the data. The two overall themes which were identified from the analysis were "uncertainty" and "flexibility and resilience" as shown in Table 3.

Table 2. Midwifery students' questions

Where do you live?

How far through your programme are you? Three or four-year programme?

Which ethnic groups do you identify with?

During the COVID-19 levels, how many people were living in your home with you?

Describe what it was like being a midwifery student during the COVID-19 pandemic?

What were the biggest challenges you faced personally or study-wise during the COVID-19 pandemic?

Did you make any personal changes in your life as a result of the COVID-19 pandemic in view of your midwifery study?

Have you experienced any interruption to your education as a result of the COVID-19 pandemic?

What changes did your midwifery programme make as a result of the COVID-19 pandemic?

What did/do you think about these changes to your education?

How were you and other student midwives supported by your organisation during this time?

What was positive about this? What else could have been done?

If you were able to practise clinically, how did you prepare and or what preparation did you receive to practise clinically during the COVID-19 pandemic?

If you were able to practise clinically, can you describe any particular clinical situations that impacted on you at this time and describe how this made you feel?

What could have been done better?

What was done well?

Table 3. Codes and themes identified in the data analysis

Example quote	Codes	Themes
I think the biggest word to describe that would be 'insecure' and also 'uncertain'. So, there was just a huge amount of uncertainty mainly around whether or not any of us would finish this year, finish our degrees this year. (Lily)	Insecurity Loss of control Constant worry Isolation Concern for self and family	Uncertainty
If we can get through the first year with a COVID pandemic, we're going to come out the other end and we're going to be really resilient midwives who are going to really understand a lot of different things compared to some others. (Danielle)	Flexibility Resilience Connection	Flexibility and resilience
... it was quite hard, just not knowing where you were going to go and what was actually going to happen with the course. So, a lot of things did get put on hold but at the end of the day, for myself, I just told myself it's out of my control. I can only do what I can do, so I kind of just rolled with the punches in a way. (Kendall)		

FINDINGS

The impact of the uncertainty of the pandemic on the learning experience for these seven students required them to develop flexibility and become resilient. We first explore the theme of uncertainty which arose for students at the beginning of the pandemic.

Uncertainty

The theme of uncertainty came through strongly in the data, and included students saying they felt insecure and experienced a loss

of control, along with constant worry and concern for themselves, their family, their colleagues and for women/people.

Insecurity

The biggest challenge for these students was the disruption to the learning, especially clinical placements, and the flow-on effects from those disruptions which were being felt down the track. One student reflected in this way, which summed up what many others had said:

I think the biggest word to describe that would be 'insecure' and also 'uncertain'. So, there was just a huge amount of uncertainty mainly around whether or not any of us would finish this year, finish our degrees this year. (Lily)

Participants especially felt uncertainty about their clinical placements:

The main thing that was tricky was the placements. We were in the middle of a community placement with an LMC [lead maternity carer] when we went into the first lockdown. So that just completely disrupted the year from then, and everything was just slowly getting shuffled back and back. (Abbie)

Abbie is referring to being on a clinical placement that had to be rescheduled, and the flow-on effect of the disruptions meant that learning was delayed until later and later in the year. Clinical placements needed to be halted initially during the first level 4 lockdown. Students were worried about not completing their clinical hours and regretted the loss of the connections they had made with women/people. Kendall spoke about all the uncertainty:

It was quite all up in the air because obviously you've got your placements, you're working with women all the time and all these sorts of things, and all of a sudden, because everything moved so fast when we did move into lockdown, it was all just like, 'oh my gosh, what do we do now?' And you didn't know what was happening with COVID, you didn't know what was happening with school, you didn't know what was happening with your family, and all these different scenarios. (Kendall)

For the participants this uncertainty also led to a sense of loss of control. Not only were clinical placements affected, but also their relationships with midwives and women. Other aspects of their lives were also impacted, including family and children's schools, for example. The concern about missing births or hours created anxiety around being able to complete the Midwifery Council's practice requirements. As Emma says:

I missed a birth um, oh I wasn't able to go to a birth ah because of, COVID so it's kind of impacted me um it sounds a bit heartless like numbers wise, like missed out on hours and missed out on that person being counted as a follow through for, um, for the Council missing out on those hours was, has impacted like quite a lot. (Emma)

Emma explains that she feels heartless in being concerned about completing Midwifery Council requirements, but on the other hand she knows that she needs to meet these to register as a midwife, so felt the impact.

Loss of control

Danielle goes so far as to liken being a student midwife during the COVID-19 pandemic to a bus crash:

Well, I described it as a bus crash. I described it as a bus crash because literally we were trucking along, everything

was going great, and then we hit the wall and then we had to stay in that bus. And we were told that it was going to be fine but we couldn't move. And then we had all the work piled on us while we were in this bus crash, while we were still stuck and we couldn't move. And then eventually when we got out of the bus we now needed to recover, but we've still got all the work on top of us. (Danielle)

The metaphor of a bus crash, which Danielle uses, reminds us that, for the students, the momentum of their course (the bus), and then the crash of COVID-19 lockdown meant a sudden stop to the momentum. Nevertheless, all the course work didn't stop piling in on top of them, even though, metaphorically, they were unable to move. Then after the bus crash there was the sense that there was no time for recovery from the trauma (of the normal momentum of the course crashing to a halt), but the expectation was they had to get back to normal and get on with it. As another student put it: *So even though they thought, 'COVID's done, you should be fine now, stop sending us all these emails and complaints and extensions', I was sitting here, 'oh, but the damage is still ongoing and it's still going too'* (Abbie).

Usually after the trauma of an event such as a bus crash, there would be a period of recovery and rehabilitation and, for Abbie, even though at that time it seemed the pandemic was over, she still felt injured but there was no accommodation made for her trauma.

Isolation

Participants who had been learning face-to-face had to move suddenly to working online from home. Some felt isolated from their midwifery support networks. Greta and Emma discussed how this was for them.

I had pretty much no contact with people who understood what my degree was like, and just being by myself in general, no human contact is quite hard to find ways to focus I guess on studies. (Greta)

Personally, I'm quite a social person. And so, I really, really missed catching up with my friends and that kind of, release that you get from like studying like, like if you study all day then go catch up with your friends I really, really miss that part of it. (Emma)

For those who were used to being around others and thrived on social contact, this was particularly challenging. Participants spoke about the smooth transition with the logistical changes to their midwifery education but highlighted the need for more pastoral support.

Apart from actually asking us how we were feeling, their communication with us was really good. I know that seems silly but, if they'd communicated and asked us how we were feeling, then that would have been really helpful. (Danielle)

Constant worry

These students also spoke of their worry about the pandemic in general, and Abbie describes it as constant "noise".

And it seemed, it was more just that it didn't seem right, in the time and with everything that was going on and these daily announcements and hearing about everything happening overseas, and how out of control that was, it didn't seem right to just sit down and carry on with my life. So, it was really hard to focus on study with so much noise in the background, literal noise and then, kind of other noise on the news and yeah that just plays in your mind a

bit. You almost feel, you almost feel guilty to just kind of sit away and keep doing your work. (Abbie)

For Abbie, hearing the news about the pandemic internationally, the daily government/public health announcements, and the fear of COVID-19 meant she didn't feel right that she should be continuing life "as normal".

Concern for self and family

Students expressed their concern for their families, and not wanting to bring the virus home to their family from the clinical area:

I got to the point where I thought, 'well, what's the point of being careful at all?' Because we're careful here and we're careful here but we're not careful in this situation. And then I'm potentially taking this home to my family when I go home, and they're sitting at home waiting for me and then I bring whatever is here. So definitely anxiety in that sense, yeah. (Lily)

Flexibility and resilience

Flexibility

Students needed to be flexible in their response to the changing environment and uncertainty they faced during lockdown. There were changes to their mode of learning, with the delivery of theoretical content suddenly moving online for some. At some institutions, practical content like simulations were also carried out online. Participants spoke about the speed at which changes occurred and acknowledged the uncertainty that came with this: *I had it on my calendars, everything that I wanted to do in order and then they're like, 'sorry, we're changing it' and I was like, 'no'* (Greta).

Despite the sudden changes, students appreciated that their educators were also having to deal with the disruption and uncertainty: *It was an experience that nobody knew how to deal with* (Danielle).

For some participants, the move to online learning was convenient and they had a smooth transition to the new learning platform. Emma adapted easily and saw the benefits of online learning: *I do enjoy getting together and doing the face-to-face teaching and I know a lot of people learn differently but um I was fine doing it online* (Emma).

Some students with children saw the positive aspects of learning from home during lockdown. They saved money on childcare costs, and some had partners and family at home who offered support with childcare also. Danielle spoke about this.

I thought that it was quite a benefit if they could make it work that if we could do it online, then it would save people a lot of money, a lot of childcare...So, I thought that was a benefit. (Danielle)

Kendall was already familiar with a blended learning approach. She praised her institution for the easy transition to total online learning and the communication with students regarding this.

Because I think my school, with the whole blended learning, it went quite seamlessly from one situation to the next. They were fantastic, they approached us very, very early on, so we had regular contact right from day one, as it was unfolding which was great. (Kendall)

Students who were out in clinical placement had to adapt to wearing PPE. Maternity services were disrupted with limitations on numbers of support people. Some students took on a greater support role, where others could not be present at births.

The midwife was like, 'oh you should go in and support her, it would be really good if she had an extra support person'. And then I couldn't even go and so it was just her and the

midwife in the end and I just felt so sorry for her. It would have been, for anyone it would have been rough but also, it's quite a cultural thing from my understanding for them to have their family present during this time. So that was really sad to hear and watch. (Greta)

Participants reflected on the juggling of roles that was required being home during lockdown, while continuing with midwifery education. They had to balance their familial and household responsibilities with their study needs. Some found this more difficult due to their personal circumstances: *And you didn't know what was happening with COVID, you didn't know what was happening with school, you didn't know what was happening with your family, and all these different scenarios* (Kendall).

Emma found that she had more support than normal, which was a positive aspect of being at home during lockdown: *I felt like I relaxed back a little bit, especially with my husband home* (Emma).

She also recognised, however, that her classmates' needs may have been different from her own: *It was never going to be perfect for everyone* (Emma).

Resilience

Despite the changes and uncertainty that accompanied COVID-19, students were able to see the positive side of their situation. They recognised that what they would gain, going through the pandemic, would be beneficial to them as future midwives. Danielle, a new midwifery student at the time of the lockdown, said the following about her cohort.

If we can get through the first year with a COVID pandemic, we're going to come out the other end and we're going to be really resilient midwives who are going to really understand a lot of different things compared to some others. (Danielle)

Some participants found that their midwifery studies gave them a sense of stability, amongst the uncertainty in other aspects of their lives. They found relief through focusing on midwifery. Bridget spoke about this.

I think because I had my study, I was able to have something to focus on. Yeah, so that was a positive for me. I had the study to take my mind away from what was happening with the COVID. (Bridget)

Bridget was pragmatic in her response to the COVID-19 pandemic. She recognised that it wasn't something that could be ignored, and it would affect her studies: *We just have to go through it. We just have to dig down* (Bridget).

Connection

The frequent connection on online platforms provided support and a sense of camaraderie for these students. Despite not being able to meet up in person, they were able to still connect and support each other virtually.

And I would say that probably one positive from the COVID experience and the lockdown experience is we've felt a lot more connected with everybody because of these meetups that we were having via this platform. So that's a positive. (Kendall)

The pandemic situation was unique, and the response felt like it was everchanging. Rules and recommendations varied in different levels, locations and settings, and this impacted on students' clinical placements. Despite this, they understood that the situation was novel and recognised that they weren't alone going through it: *We've gone through something together, there's this sense of connection going through this really odd experience together* (Lily).

Students recognised that others' realities were different to their own. They showed empathy by offering support to their peers when needed. Emma talked about how she supported a vulnerable friend in her class during the lockdown.

I know one of, um, my friends is a single mother who had a child that has um like chronic asthma and so it was nerve wracking for her going out at any time um and so I know I did like a shop for her and stuff like that just to help out where I could because she was living at home with a 2-year-old. (Emma)

DISCUSSION

The initial COVID-19 lockdown in Aotearoa NZ, in March 2020, brought much uncertainty for the midwifery students in the study. The situation was constantly evolving, resulting in insecurity, a loss of control, concern, and worry.

Anxiety/constant worry

Our findings resonate with other international studies which have found anxiety to be a common challenge during the pandemic. Sögüt et al. (2021) investigated COVID-19 knowledge levels and anxiety states of midwifery students in Türkiye. They found that anxiety was increased during this time. For student midwives in the UK there was worry about being able to achieve the required practical components of their degree in time for their projected graduation (Hoggarth, 2020). The student midwives in our study described feeling "out of control" due to having placements changed or cancelled and not knowing how this would affect their progress and success.

Being on placement during a pandemic has also been described as difficult internationally, with some UK students feeling an obligation to work on the front line due to staff shortages during the pandemic, along with feelings of anxiety before starting placement and significant anxiety once deployed (Kane et al., 2021). The students in our study were also worried about their health and that of their family members, with concerns of catching the virus while on placement and spreading it within their family.

Isolation/connection

Student midwives in our study described feeling isolated from their usual support networks. Connection and communication were major challenges for many institutions during the pandemic. These concerns were echoed by Kuliukas et al. (2021) who carried out a cross-sectional study of midwifery students' experiences of COVID-19 in Australia. They found communication from universities and hospitals was often confusing and inconsistent. Students relied on each other and social media to keep themselves up to date. The variable ability of organisations to respond to this challenge impacted either positively or negatively on students' learning and clinical experience. Handley-Stone (2021) identified the challenge for midwifery students in the UK to maintain connection during the pandemic and that they needed a greater sense of community and improved communication during this time.

Our participants described creating connections virtually to overcome isolation. Increasing online connection was also reported by other international studies. Nash et al. (2021) found that some UK students reported that the strong relationships, developed during this time between them and the midwives, increased their learning and developed their skills. Students spoke positively about their experience of gaining strength as a group, being supported by their tertiary institution, and also feeling part of something bigger (Wilson & Lloyd, 2021). Therefore, acknowledging students' anxieties and needs and being available to check in with students

are important to their physical and mental wellbeing. In addition, supporting contact and optimal communication can reduce isolation and support flexibility.

A valuable experience

Kane et al. (2021) found that the pandemic provided an opportunity to advance personal development (for the student midwives in their study). Nash et al. (2021) spoke about the unexpected opportunities some students had for continuity of placement that they may not have had otherwise. A similar finding was reflected by the students in our study who identified that the pandemic was a valuable, yet challenging, experience which also strengthened their resilience.

Lessons for the future

It is now (February 2023) the fourth year of the global COVID-19 pandemic, and attitudes and response to the threat have changed. Responses can now be informed by national and international research as well as individual experiences.

At the time that the participants were interviewed, no one anticipated that COVID-19 would continue to disrupt midwifery education for a number of years. Some of the interviewed participants have been impacted by the COVID-19 pandemic throughout their entire degree to date. Student midwives are considered part of the critical workforce and had to further adapt and be flexible as the situation continually evolved.

The challenges and opportunities presented by the pandemic provide some key insights for both education and health providers. The teaching of skills to cope with uncertainty and crisis management appears to be something that would serve midwifery students and the profession well for the future. Alongside this, institutions and clinical facilities that were flexible and innovative ensured the impact of the pandemic on students was minimal, or even potentially positive. It is important for institutions to respond and adapt to the changing needs of the education sector and health workforce, and develop strong, collaborative relationships. The setting up of online platforms has facilitated connection and provided structural support when being physically on campus hasn't been possible.

From the international perspective, one of the initiatives which impacted on students' clinical experience were "wobble rooms" where staff and students could have some time out, relax, gather themselves and gain their strength to go back into the clinical setting (Hoggarth, 2020). Such initiatives provided students with learning about coping during stressful times and even began to change the culture around stress and coping. Kane et al. (2021) also touched on this in that they identified that there was little or no preparation of students for the reality of health professionals becoming infected and dying of COVID-19. It would appear that the pandemic has provided an opportunity to review curricula to ensure we are better preparing midwifery students.

Renfrew et al. (2021) undertook a health system analysis to identify the lessons learnt from the pandemic translating into strategies to cope, adapt and transform for the future. One of the insights from this research is that those who responded successfully to the pandemic had strong pre-existing relationships and worked collaboratively across the educational and health sector.

Lazenby et al. (2020) captured the experience of the disruptions for clinical nursing and midwifery and the future implications. The authors of this article from the United States, Australia, UK and Botswana captured a common experience. One of the things they are clear about is that one of the most successful ways of dealing with the pandemic was where partnerships were set up between

education providers and hospitals, and students were a valued part of the workforce. The authors suggest it is time to take seriously the recommendations in the World Health Organization's State of the World's Nursing 2020 report. In particular, that academic leaders and nursing and midwifery workforce leaders need to be part of each other's governance and engage in joint projects rather than being within siloed institutions. The authors of this article called for an urgent recalibration of how clinical education is organised and facilitated to ensure competent, confident and credentialed providers in the new pandemic age (Lazenby et al., 2020).

It would appear that what enabled the best response was an integrated educational and health service built on trusting pre-existing relationships where there was the ability to be flexible and to adapt. The flexibility was seen in some areas in Europe where the European Union directive for the requirements of certain tasks and numbers was reinterpreted. This permitted those students to complete their education in three academic, rather than calendar, years and to enter the workforce early if they had reached all their targets. This not only meant these students were able to register and graduate on time, but that the workforce pipeline was sustained (Luyben et al., 2020). In Aotearoa NZ various pathways and supports have accommodated students to register as midwives. However, it is recognised that future research will be required to ascertain the support these new practitioners may need as they transition to their role as registered midwives.

Key points

- During a pandemic or similar crisis it is essential to acknowledge students' anxiety and needs and to check in and provide support regarding their physical and mental wellbeing.
- Midwifery educators need to be flexible in adapting their education programmes.
- Clinical placements need to be developed in collaboration with midwifery services to be safe and flexible for students.

STRENGTHS AND LIMITATIONS

One of the strengths of this study was the in-depth interviews with midwifery students about their experience during the lockdown phase of the COVID-19 pandemic, which meant that their experiences were very current. A limitation of the study was the small number of participants. Because the experiences of only seven midwifery students were included in this paper, the findings may not be representative of the study population.

CONCLUSION

The COVID-19 pandemic has provided midwifery education with both challenges and opportunities. The lessons are that during a pandemic it is essential to acknowledge students' anxiety and needs, and to check in and provide support regarding their physical and mental wellbeing. Other learnings from the COVID-19 pandemic are that midwifery educators need to be flexible in adapting their education programmes, including teaching via online platforms. Clinical placements need to be developed in collaboration with

midwifery services to be safe and flexible for students, and midwifery programmes need to prepare students for practising in a pandemic or similar crisis.

ACKNOWLEDGEMENTS AND CONFLICT OF INTEREST DISCLOSURE

We would like to thank the students who generously shared their time and experiences to participate in this research. We also acknowledge and thank the transcribers: Shoba Nayar, Allan Baddock and Annie Oliver.

The authors declare that there are no conflicts of interest and that no funding was received for this research.

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Accepted for publication January 2023

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AOTEAROA NEW ZEALAND RESEARCH

Midwives' perceptions of enablers and barriers to pertussis and influenza vaccination in pregnancy and information sharing

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ABSTRACT

Background: Vaccination in pregnancy against influenza and pertussis protects the pregnant woman/person and their infant against severe disease. Aotearoa New Zealand has a lower uptake of vaccination in pregnancy than some other countries, despite this immunisation being publicly funded. Coverage is also inequitable, with Māori, Pacific people, and people from high deprivation areas less likely to be vaccinated. Many barriers exist to vaccinations in pregnancy, e.g., access barriers and lack of knowledge about vaccination. Discussions about recommended vaccines with healthcare professionals, particularly midwives, may have a positive impact on vaccine decision-making.

Aim: This study aimed to investigate midwives' perceptions of enablers and barriers with discussions about vaccinations in pregnancy, barriers to vaccination in pregnancy, and influences on vaccine decision-making in pregnancy. The study also aimed to gather midwives' insights into what might improve vaccination uptake.

Method: A structured questionnaire was developed containing a mix of closed and open-ended questions. The questionnaire was sent out to 3002 midwives registered in Aotearoa New Zealand in October 2021, using REDCap electronic data capture tools. Simple descriptive statistics were undertaken on the quantitative data. The answers to the open-ended questions were analysed using a direct, qualitative content analysis approach.

Findings: Fifty-one midwives' responses were included in the analysis (1.8% response rate). Almost all reported sufficient knowledge of vaccinations in pregnancy but had varying levels of confidence when discussing them. The most common enablers to conversations were good relationships, easy communication, and having the time and resources available. Respondents perceived that barriers to conversations were negative preconceptions, communication difficulties and lack of time. Lack of awareness, cost to access services and competing priorities for time were also thought to reduce the likelihood of vaccination in pregnancy. To improve vaccine uptake, respondents identified the need for accessible and suitable vaccination venues, appropriate information and the support of all healthcare professionals involved in maternal healthcare.

Conclusion: Midwives surveyed understand the importance of vaccination in pregnancy but there may be lack of confidence, time or resources to effectively engage in discussions. A trusting relationship is important but this can be affected by disengagement or late presentation to healthcare services. Resources to counter pre-existing negative ideas and support communication would help midwives to provide useful information about vaccination. Furthermore, respect and cultural understanding of hapū Māori and their needs will positively support their ability to make informed decisions.

Keywords: midwives, vaccination in pregnancy, immunisation, communication, barriers, decision-making

BACKGROUND

Influenza and pertussis vaccinations during pregnancy have proven safety (Griffin et al., 2018; Lu et al., 2021) and effectiveness for the mother and infant (Ministry of Health [MOH], 2020a), and have been widely recommended for many years. Aotearoa New Zealand (NZ) has a lower uptake of vaccination in pregnancy than some other countries (Maertens et al., 2016; Quattrocchi et al., 2019; Razzaghi et al., 2020; Sebghati & Khalil, 2021), despite the vaccinations being publicly funded for almost a decade

(Immunisation Advisory Centre, 2022; MOH, 2020a; World Health Organization, 2005). Vaccination against influenza in pregnancy protects the mother from severe infection and their infant in its first few months of life, by passive antibody transfer across the placenta (MOH, 2020a). Influenza can be severe during pregnancy, resulting in hospitalisation (including ICU admission and death), preterm birth and low birthweight for newborns (Immunisation Advisory Centre, 2022; Rasmussen et al., 2012).

Vaccinating against pertussis in pregnancy will provide passive protection for pēpi (see glossary of Māori terms, p. 36) too young to be vaccinated themselves (MOH, 2020a). Pertussis infection in pēpi can result in severe complications, including seizures, pneumonia, brain damage and death (bpac^{nz}, 2014; Environmental Science and Research NZ [ESR], 2013). Vaccinating in pregnancy reduces the risk of hospitalisation from influenza infection during pregnancy by 65% (MOH, 2020a) and infant pertussis hospitalisation by 38% (bpac^{nz}, 2014). Aotearoa NZ experienced its latest pertussis outbreak between October 2017 and May 2019 (ESR, 2019). For the 12 months to May 2019, there were 152 cases of pertussis in pēpi and over half of these cases were hospitalised (ESR, 2019). Māori and Pacific pēpi are disproportionately affected by pertussis (ESR, 2019).

Although the benefits of vaccinating in pregnancy are clear, in 2018 less than half of pregnant women/people in Aotearoa NZ were vaccinated against pertussis and less than a third against influenza (Howe et al., 2020). Furthermore, coverage was inequitable, with Māori, Pacific people and people from low deprivation areas significantly less likely to receive vaccinations in pregnancy than other groups (Howe et al., 2020; Pointon et al., 2022). Because Māori and Pacific pēpi have higher rates, and increased likelihood, of being hospitalised with pertussis and influenza infection (ESR, 2013; Prasad et al., 2020; Somerville et al., 2007), the inequitable vaccination coverage in pregnancy for Māori and Pacific people has serious consequences for their pēpi and tamariki.

Although influenza and pertussis vaccinations are available free of charge during pregnancy in Aotearoa NZ (MOH, 2020a), many barriers to vaccination have been identified. Some pregnant women/people often remain unvaccinated in Aotearoa NZ and internationally because they do not receive information about vaccinations in pregnancy (Donaldson et al., 2015; Gauld et al., 2016; Young et al., 2022). Other barriers include limited access to care, lack of transport to vaccination venues, costs involved with vaccination and time pressures (Duckworth, 2015; Gauld et al., 2022a; Gauld et al., 2022b; Hill et al., 2018; Larson et al., 2014; Wilson et al., 2015). Unfortunately, some barriers (such as cost and transport issues) are likely to affect those most vulnerable to poor health outcomes in the community and thus worsen existing health inequities. Additionally, some may choose to remain unvaccinated during pregnancy due to negative influences and conflicting priorities (Young et al., 2022). To support women/people to make informed decisions for themselves and their whānau, barriers to both access and acceptance need to be addressed.

Discussion with health professionals, including midwives, about vaccine recommendations positively impacts the decision to be vaccinated (Healy et al., 2015; Kriss et al., 2019; Mak et al., 2015). However, in some cases, the decision is left up to the pregnant woman/person with no clear recommendations provided to assist decision-making (Duckworth, 2015; Nowlan et al., 2015). Lack of healthcare providers' confidence (Wilcox et al., 2019) and up-to-date knowledge of vaccination recommendations can also prevent vaccination from being discussed in pregnancy (Frawley et al., 2020; Gauld et al., 2016; Wilson et al., 2019). Some healthcare professionals may have negative perceptions of vaccines and are unwilling to promote their use in pregnancy (Wilson et al., 2019).

In Aotearoa NZ, funded maternity care is provided by Lead Maternity Carers (LMCs) in a midwifery continuity-of-care model (MOH, 2021; New Zealand College of Midwives [the College], 2019). Most often, care is provided by community midwives; however, people unable to book with community midwives as their LMCs may receive care from a hospital-based midwifery team.

As most pregnant women/people have midwifery care during their pregnancy in Aotearoa NZ (MOH, 2022), it is important to understand more about midwives' actual and potential role in vaccination decision-making.

AIM

This study aimed to:

- i) investigate enablers and barriers that support or inhibit midwives during their discussions about vaccination against pertussis and influenza in pregnancy;
- ii) investigate, from midwives' perspectives, barriers to vaccination and what positively or negatively influenced decisions to vaccinate against pertussis and influenza in pregnancy; and,
- iii) gather insights from midwives on what might improve vaccination against pertussis and influenza uptake during pregnancy.

METHOD

Participants, recruitment, and study setting

This cross-sectional survey was part of a larger mixed methods study (Young et al., 2022, 2023) underpinned by pragmatism as the research paradigm (Cameron, 2011; Clarke & Visser, 2019; Onwuegbuzie & Leech, 2005). Pragmatism supports utilisation of both quantitative and qualitative data to better understand and define the results to address the research aim (Cameron, 2011; Clarke & Visser, 2019; Onwuegbuzie & Leech, 2005). A structured questionnaire was developed by the research team (AY), based on a previously validated questionnaire (Wilcox et al., 2019), other literature (Frawley et al., 2020; Gauld et al., 2022a) and members of the research team's knowledge of clinical practice (i.e., midwife, general practitioner and pharmacist). The questionnaire contained a mix of closed and open-ended questions. Open-ended questions consisted of general questions, where participants could respond generally about a question, and expansion questions, where participants were asked to elaborate on a closed question (O'Cathain & Thomas, 2004). This was to create a more complete picture of midwives' views and experiences in practice and deepen the understanding of the quantitative responses (Onwuegbuzie & Leech, 2005). The questionnaire underwent review by the academic research group (comprising of a Māori academic, a general practitioner, midwives and pharmacists) and a governance group at the College. Minor changes for clarification were made following pilot testing. (Contact lead author for access to the questionnaire.)

We sought participation from registered LMC midwives currently practising in Aotearoa NZ, either as primary care LMCs or employed in a hospital setting or other organisation, to provide care to a caseload of pregnant women/people. Recruitment was undertaken via an email sent out on behalf of the research team by the College to their members in October 2021.

This research was approved by the University of Otago Human Ethics Committee (D21/170).

Data collection

Study data were collected and managed using REDCap electronic data capture tools hosted at the University of Otago (Harris et al., 2019; Harris et al., 2009). The first page of the electronic version of the questionnaire contained the Participant Information Sheet and the option to consent to the survey. Data collection was anonymous to protect the identity of participants. The College sent an email link to the survey to 3002 midwife members.

Analysis

An Excel spreadsheet of results was subjected to quantitative and qualitative analysis. Simple descriptive statistics were undertaken on quantitative data. Open-ended questions were analysed using a direct, qualitative content analysis approach (Corner et al., 2013; Hsieh & Shannon, 2005). Open responses were read and reread multiple times by the first author (AY). The study aims were used to provide a structural analysis of the framework to align with the quantitative questions in the survey of *Discussions about vaccination* with a focus on time pressures as a barrier to effective discussions, *Barriers to vaccination perceived by midwives*, and *Midwives' recommendations to support vaccination*. Data were inductively analysed within this framework by allocating codes and arranging into potential themes and sub-themes. Themes and sub-themes underwent further refinement by reviewing, collapsing and reordering until the final themes were conceptualised. These were then peer reviewed by the Māori investigator on the project (EW). Simple counts of participants were used to describe the proportion of comments relating to a theme or concept within a theme (Corner et al., 2013). Important themes were illustrated by direct quotes from participants, a step which also supports transparency of the analytical process.

Particular consideration was given to opinions about barriers to vaccination and discussions with hapū Māori and Pacific people as these groups, as already stated, have lower immunisation coverage in pregnancy. A Te Ao Māori lens was applied to the analysis process to ensure appropriate framing of opinions and avoidance of purporting negative cultural stereotypes in the analysis of midwives' perceptions.

FINDINGS

Sixty-two midwives responded to the survey; 11 responses with more than 20% of data missing (i.e., stopped responding after the initial couple of questions) were removed from analysis (Field, 2013). A total, therefore, of 51 responses were included in the analysis (1.8% response rate).

Most respondents practised as an LMC midwife, had NZ European ethnicity, and had been practising for longer than 10 years (Table 1). Compared to the midwifery workforce overall, there was a similar proportion of Māori participants (12%, compared to 11% in the workforce) and Pacific participants (4%, compared to 3% in the workforce). However, proportionally more participants in our study had been practising for over 10 years compared to midwives currently practising (Midwifery Council, 2021). All respondents could speak English conversationally and four people reported fluency in another language.

Table 1. Demographics and employment details of respondents (N=51)

Demographic characteristic	n (%) (N=51)
Ethnicity*	
NZ European	36 (71%)
Other European	11 (22%)
Māori	6 (12%)
Pacific Islands (Cook Islands Māori, Samoan, Tongan)	2 (4%)
Chinese	2 (4%)
Years as a practising midwife	
5 years or less	9 (18%)
6-10 years	6 (12%)
11-15 years	11 (22%)
16-20 years	9 (18%)
21+ years	16 (31%)

* Multiple ethnicities could be chosen

Qualitative and quantitative findings have been presented together. Qualitative analysis was undertaken to explore midwives' perceptions of *knowledge and confidence in providing information*, *lack of time and late presentation* as barriers to discussions, and *groups less likely to be vaccinated in pregnancy*, and to identify *midwives' recommendations to support vaccination*. See Table 2 for an overview of qualitative findings.

Table 2. Overview of qualitative findings

Section	Qualitative themes
Discussions about vaccination	
Knowledge and confidence in providing information	i) Information to support discussions ii) Ongoing education
Barriers to effective discussions about vaccination in pregnancy: Time pressures	i) Expectations to give information on many topics ii) Limited resources and prioritisation iii) Complex and/or time-consuming communication required
Barriers to vaccination perceived by midwives	
Groups less likely to be vaccinated	i) Māori or ethnic minority groups ii) Vulnerable groups who have less engagement with healthcare service iii) Individuals who are against vaccination
Midwives' recommendations to support vaccination	
	i) Accessible and suitable vaccination venues ii) Appropriate information iii) The role of midwives and other healthcare providers

Discussions about vaccination

Knowledge and confidence in providing information

Almost all the midwives (n=48, 94%) reported having sufficient knowledge about vaccination in pregnancy to support their discussions with pregnant women/people. Despite this, a minority of respondents felt *extremely confident* discussing influenza (n=18, 35%) or pertussis vaccination (n=22, 43%) in pregnancy. Around half of respondents felt *moderately confident* when discussing influenza (n=27, 53%) and pertussis (n=26, 51%) vaccination. Few midwives felt *slightly* or *somewhat confident* discussing influenza vaccine (n=2, 4% and n=4, 8% respectively) or pertussis vaccine (n=1, 2% and n=2, 4% respectively). No midwives felt *not at all confident*.

Open responses from "comments on confidence discussing vaccination" were categorised into two themes: i) information to support discussions and ii) ongoing education. Six midwives appreciated and used leaflets and/or websites as tools to support discussions. However, five midwives were concerned they could not provide useful supporting information when it was needed. For example, when trying to counter misinformation, one midwife said "I try to give balanced information, but for couples entrenched in their views, I do not always have the information at my fingertips to counter some of those inaccurate 'facts' they quote" (P35).

Ten midwives kept up to date with best practice and ongoing education to remain confident to discuss recommended vaccinations in pregnancy. However, they found the changing recommendations over time could be difficult to stay up to date with.

Enablers to effective discussions about vaccination in pregnancy

When asked what factors facilitate communication about vaccination, most considered “having a good relationship” (n=49, 96%) and “ability to communicate together easily” (n=49, 96%) enabled discussions. Next came “having time to discuss vaccination” (n=48, 94%), “access to resources to help discussions” (n=43, 84%) and, similarly to “remaining confident”, 35 participants (69%) considered “access to learning resources to improve their own knowledge” important. Most (n=31, 61%) also thought that pregnant women/people already knowing about vaccination recommendations in pregnancy helped facilitate communication. Other factors identified in open responses were: being able to easily recommend accessible vaccination locations, high levels of trust through continuity of care, respecting pregnant women/people as decision-makers, and going to peoples’ homes to talk with them and their whānau. Also a cultural understanding of a Māori worldview is important, with one participant commenting “Having a Māori view point, we have many risks in pregnancy including systemic racism” (P45).

Barriers to effective discussions about vaccination in pregnancy

Most midwives thought that people having negative preconceptions about vaccination in pregnancy (n=41, 80%) and communication difficulties (e.g., cannot speak English fluently) (n=35, 69%) were the most common barriers to discussions about recommended vaccines.

Some midwives also identified that lack of an established relationship (n=19, 37%), difficulty in finding resources to support discussion (n=7, 14%), and lack of educational resources to support knowledge (n=6, 12%) negatively affected vaccination discussions.

In open responses, a lack of engagement in maternal health services, due to the potential for a lack of respect and cultural insensitivity to mothers, was also noted as a barrier. One midwife described how this may undermine any progress they have made with recommending vaccination “... We have formed a relationship we [are] whakapapa, they trust me, however don't trust the system... They don't trust the doctors, or feel disrespected... Māori are not stupid, yet [we are] spoken to like we are” (P45).

Time pressures

A lack of time was commonly identified (n=23, 45%) as an issue. Reasons for lack of time were explored in open responses and three themes were identified: i) expectations to give information on many topics; ii) limited resources and prioritisation; and iii) complex and/or time-consuming communication required. Seven midwives expressed concern that there is an expectation that midwives are required to give information on a growing range of topics, which is causing pressure on meaningful conversations about vaccination.

... everyone who specialises in one particular field expects us to be the one stop shop for everything all at once. i.e. smoking, drugs, alcohol, social support, counselling, sexual health, screening, vaccinations. Whilst most of that is seen to, women do not absorb it all if done at the same time, and everyone thinks we should talk about their specialty first. (P13)

Other pressures causing time constraints were lack of resources, such as staff shortages and support for those who do not speak English. Also, when complex health and social issues are present, discussing vaccination takes a lower priority, particularly if pregnant women/people present late to services: “When other complexities and acute issues arise, sometimes vaccines can be overlooked” (P22).

Five midwives thought that late presentation to midwifery services meant that it was more difficult to build a trusting relationship for impactful recommendations. Some midwives identified that conversations about vaccination can be difficult and time-consuming, particularly for those who have negative preconceptions about vaccine safety. Restricted time for consultations can make it difficult to engage with pregnant women/people and have effective discussions: “Sometimes [we] have a lot to get through and, for the vaccine hesitant, must revisit [these] conversations several times and offer material, links to information” (P43). This may be particularly difficult for those who require additional support:

These are often people who have been itinerant, or who are unable to access GP services due to their immigration and financial status. They need a rapid amount of input and often vaccination is one of the lower priorities in favour of things like adequate housing, social support, working with Oranga Tamariki/police/corrections/immigration. (P1)

Barriers to vaccination perceived by midwives

Midwives were asked what might negatively influence pregnant women/people from being vaccinated during pregnancy. Midwives perceived that concern about the safety of the vaccine (n=47, 92%), worry about side-effects for the baby (n=45, 88%), and not believing they are at risk of disease (n=30, 59%) were the most common reasons to remain unvaccinated. Less than half of the midwives thought pregnant women/people worrying about getting side-effects themselves (n=23, 45%) or doubting the effectiveness of vaccines (n=20, 39%) would negatively influence their decision to vaccinate.

The most common barriers to vaccination in pregnancy identified by midwives were people’s lack of awareness about recommended vaccinations (n=37, 73%), cost to access services (e.g., travel cost, outstanding fees at GP surgery; n=27, 53%) and competing commitments such as work (n=27, 53%) or childcare (n=26, 51%). Other barriers that some identified were women/people not being engaged with health services during pregnancy (n=24, 47%) and limited access to vaccination services (n=14, 27%). Other perceived barriers described in the open responses were lack of available vaccinators due to the COVID-19 pandemic, difficulty in enrolling or accessing GP services due to staff shortages, and worry that there was a fee to pay for accessing services.

Groups less likely to be vaccinated in pregnancy

Midwives were asked if they thought certain groups would be less likely to be vaccinated. This was to help identify harder-to-define barriers to vaccination that may be in place in primary care. Most midwives (n=40, 78%) thought there were particular groups who were less likely to receive vaccinations in pregnancy and three were identified: i) Māori or ethnic minority groups; ii) vulnerable groups who have less engagement with healthcare services; and/or iii) individuals who are against vaccination.

Fourteen respondents thought certain ethnic groups were less likely to receive vaccinations. Of these respondents, 11 (79%) thought that Māori and six (43%) thought that Pacific people would be less likely to receive vaccines. For hapū Māori, participants most commonly attributed lower likelihood of vaccination to inequitable health systems and lack of trust in the health system. One participant said, “Māori community [would be less likely to be vaccinated], especially if they have already had poor experiences with healthcare, snowballing effect of colonisation for distrust of Pākehā institutions” (P9).

Twelve respondents thought that more vulnerable groups would be less likely to be vaccinated. These groups were described as

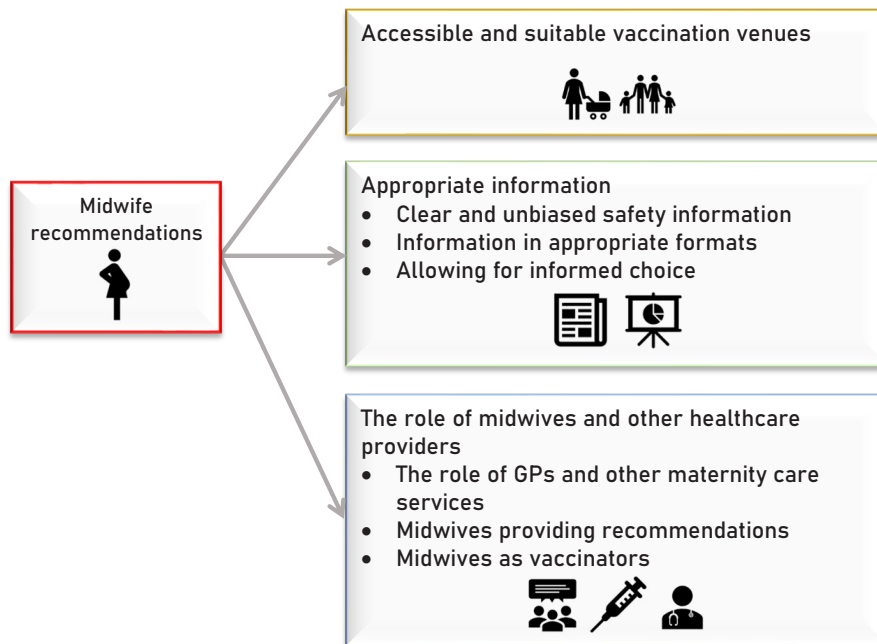
low socio-economic groups (n=5), younger mothers (n=3), those with lower health literacy or difficulty communicating in English (n=6), those with less engagement with healthcare services (n=3), and those who the GP has expressed concern for (n=1). Three midwives also thought Māori or Pacific people were more likely to be over-represented in these groups, with one saying "...people at the bottom end of the socio-economic scale, who are not usually opposed to vaccination, but for whom logistics of access are a challenge" (P22).

Twenty-three midwives believed that individuals who were against vaccination prior to pregnancy were the group least likely to be vaccinated. This included those who usually refuse vaccinations and "conspiracy theorists", those who distrusted government recommendations (particularly about COVID-19 vaccination, and those who searched social media and online forums for health information). One participant said, "Alternative medicine communities [are less likely to be vaccinated], they have found Western medicine to be ineffective for them and have found the alternative medicine community to be more helpful; some have fallen deep into conspiracy and anti-vax spaces" (P9). Other groups identified were "alternative lifestyle" and "non-interventionist" who want control over their body, and conservative or religious groups.

Midwives' recommendations to support vaccination

Midwives were asked what might support pregnant women/people to be vaccinated and three themes and six sub-themes were identified (Figure 1).

Figure 1. Midwives' recommendations to support pregnancy vaccination



Eight midwives thought that *accessible and suitable vaccination venues* would encourage vaccination. This included locations that supported women/people to bring along other children they were caring for, outpatient clinics, and locations such as drop-in vaccination centres for those who may not be able/willing to book appointments (as was being done with COVID-19 vaccines), pharmacies and workplaces (for influenza vaccine). Also, two midwives suggested that being vaccinated at the general practice when already attending other appointments was a good strategy.

Twenty-three midwives thought that *appropriate information* was important. Eight midwives thought that *clear and unbiased information* would help and must be simple and pitched to the individual's health literacy. Two respondents would like specific information about proof of safety that could debunk fears that people may have. Another two asserted that information should not appear biased or coercive; one participant commenting "Great comm[unication]s, messaging, and information that is presented as not biased... Māori women in particular do not like to feel coerced otherwise you lose them immediately" (P13).

Four midwives felt that their recommendations were being undermined by vaccine mis- and disinformation spread on social media and via other means. They thought that reducing misinformation would help support pregnant women/people to be vaccinated.

Six midwives described *appropriate formats* of information (two suggesting multiple languages) might help support vaccination, including written information and posters, as well as pictograms and online resources with pictorial and video messaging, e.g., "Visual statistical representation of complications/side effects in pregnancy without the medical jargon" (P2).

Three midwives thought that *allowing for informed choice* was important, ensuring that enough information was given but understanding that, ultimately, the decision to vaccinate is a personal one. As one respondent commented, "... the more women are 'pushed' into vaccinating increases resistance. It seems to work better if women feel they have made the decision themselves rather than being pushed/coerced/bullied into vaccination" (P20).

Regarding *the role of midwives and other healthcare providers*, eight midwives thought that vaccination support from others involved in maternity care services would boost vaccination efforts, such as GPs taking responsibility for booking vaccinations. One midwife suggested that increasing trust in other maternity care services would help, saying, "Without doubt increasing women's trust in the maternity care services outside of their LMC... women need to know that they are valued as mothers and consumers of wraparound maternity services" (P27).

Four thought that midwives providing clear recommendations would help, with one advocating for early conversations about vaccination to give time for decision-making and further discussions. Two respondents thought that midwives providing vaccinations themselves would support the provision of vaccination in pregnancy.

DISCUSSION

This study examined enablers and barriers the participant midwives experienced to discussing vaccinations during pregnancy and supporting informed decision-making. Enablers identified were having effective communication with pregnant women/people, sufficient time to discuss vaccination, supporting resources, and access to ongoing education to improve and update their own knowledge. Establishing trusted relationships was also an important enabler to effective discussions and a cultural understanding of Te Ao Māori was identified as important for hapū Māori. Midwives noted difficulties with building relationships when people presented late to services or if other priorities took precedence. Other identified barriers to effective discussions were pregnant women's/people's pre-existing negative ideas about vaccinations, previous poor experiences with health services, communication barriers and, similarly to midwives participating in other recent Aotearoa NZ and Australian studies, lack of time (Frawley et al., 2020; Gauld et al., 2022b).

Informed decision-making

Previous research on vaccination coverage in pregnancy has consistently identified that lack of knowledge and of information provision about vaccine recommendations are barriers to vaccine uptake (Gauld et al., 2016; Wilson et al., 2015). This was also recently described in an Aotearoa NZ study where over half of the 15 hapū Māori and Pacific people interviewed were unaware of one or both vaccine recommendations (Young et al., 2022). Midwives in our study thought that pregnant women's/people's concerns about vaccine safety and side-effects in their baby, and not believing they are at risk of disease, might prevent them from choosing to be vaccinated. These concerns have been frequently found in previous studies and cited as reasons why pregnant women/people do not get vaccinated (Gauld et al., 2016; Young et al., 2022). Although not raised in our study, other studies have shown that some healthcare providers also share these views, i.e., they do not support vaccination in pregnancy and avoid discussing vaccinations or actively recommend against them (Krishnaswamy et al., 2018; Wilson et al., 2019).

A positive recommendation to vaccinate in pregnancy from a trusted healthcare provider, alongside information about vaccines, can improve vaccine uptake (Mak et al., 2015; Wilson et al., 2015). Midwives in our study identified suitable and appropriate information must be provided, i.e., unbiased and in a format that is clear and easy to understand. Some midwives in our study liked using information resources (e.g., pamphlets and/or websites) to support their discussions about vaccination recommendations. The provision of resources to aid discussion is well-known to enhance counselling practices and individuals' understanding (Raynor et al., 2007) and is best practice to support informed decision-making.

To support time-poor midwives, easy-to-access resources are necessary. These tools must be tailored to the preferences of pregnant women/people (including the use of multimodal forms, such as short videos), up-to-date and easily accessible for use at point-of-care. Furthermore, healthcare provider misconceptions and knowledge gaps must be addressed to ensure appropriate

information is provided to pregnant women/people about safety and efficacy of vaccinations in pregnancy.

Vaccination conversations can be challenging

Although almost all participants felt they had sufficient knowledge about vaccination in pregnancy to support discussions, only a third felt *extremely confident* to discuss influenza vaccination and only half to discuss pertussis vaccination in pregnancy. This is similar to results in a United Kingdom study where only 55% of midwives were *very or moderately confident* discussing vaccines (Wilcox et al., 2019). Findings from an Australian qualitative study differed, as some midwives described not feeling confident or capable to discuss vaccination in pregnancy due to a lack of education about the topic (Frawley et al., 2020). Although midwives in our study felt they had sufficient knowledge, one of the ways they identified to support their confidence in discussions included keeping up-to-date with vaccine information (e.g., through ongoing education) which was also suggested by healthcare providers in another Aotearoa NZ study (Gauld et al., 2022b).

Midwives in our study also perceived that a barrier to discussions was pregnant women/people having negative preconceptions about immunisations in pregnancy. Pre-existing attitudes and beliefs were found to lead to general vaccine hesitancy in a 2022 review, shown to correlate with the situation of individuals living in areas of high deprivation (Tafea et al., 2022). A 2020 Australian study found that if midwives thought patients had already made up their minds, they would not try to give them further information to support informed decision-making (Frawley et al., 2020). Furthermore, midwives in our study and another Aotearoa NZ study (Gauld et al., 2022b) were concerned about the prevalence of vaccine misinformation and the difficulties of countering this in practice. Conversations with vaccine-hesitant individuals, or those experiencing other barriers to discussions about vaccines, would need more time allocated and possibly require multiple conversations, which may be difficult for midwives who are already overextended. It is evident that the midwife workforce is stretched, with some pregnant women/people struggling to find access to midwifery care (Priday et al., 2021). Opportunities for continuing education, training and skills in countering misinformation and disinformation could support midwives' confidence and time efficiencies when discussing maternal vaccination. These opportunities must be widely disseminated and promoted for continuing education and practice support.

Engagement and building trust

The health system being inequitable and there being a lack of trust in the health system were identified by some midwives in our study as disadvantaging Māori. An Aotearoa NZ study investigating vaccination coverage in pregnant women/people across the country identified that hapū Māori and Pacific people are close to half as likely to be vaccinated compared to other ethnicities, and coverage was lowest in those living in areas of highest deprivation (Howe et al., 2020). Another Aotearoa NZ study from 2014 investigating young Māori mothers' experiences of care in pregnancy also found they experienced barriers to accessing maternal care, such as a lack of information and assistance with accessing LMC services and a lack of available midwives (Makowharemahihi et al., 2014). A 2022 review also identified that poverty is "strongly associated with low vaccination uptake" amongst Pacific families, as were the attitudes and beliefs held by Māori and Pacific communities (Tafea et al., 2022). Furthermore, a health professional's inability to communicate with Pacific and migrant people has been identified as a barrier to vaccination (Tafea et al., 2022). International studies

have also identified groups experiencing lower rates of vaccination in pregnancy, including Aboriginal and Torres Strait Islander people who have lower vaccination coverage in Australia (Rowe et al., 2019), Black (British, African, Caribbean) people in London, UK (Donaldson et al., 2015), and Hispanic and Black/African-American pregnant women/people in the United States (Frew et al., 2014). Lack of engagement with health services was also flagged by the study midwives as a potential barrier. This has been shown previously in Aotearoa NZ where inability or reluctance to engage with healthcare services to receive vaccinations in pregnancy disproportionately affects hapū Māori and Pacific people (Nowlan et al., 2016; Tafea et al., 2022). Other studies have also identified that vaccination coverage is reduced with increasing parity (Howe et al., 2020; Rowe et al., 2019) but this was not mentioned by midwives in our study. Vulnerable groups, such as very young mothers, those from areas of high deprivation and those with low health literacy or ability to speak English, were thought to be less likely to be vaccinated in our study.

Building trust between people and their healthcare provider takes time, a precious commodity in an already stretched health system. However, if vaccination coverage in pregnancy is to improve, it is essential that changes are put in place to support the necessary time needed to build relationships in order to deliver effective discussions around vaccination.

System improvements to support vaccination

The study midwives identified many ways vaccination coverage could be supported. Participants identified that accessible and suitable venues for vaccination were important to improve patient-centred care and facilitate vaccination, and that child-friendly environments and easy-to-access drop-in centres would be of use for some pregnant women/people. Other Aotearoa NZ studies also found that pregnant women/people needing to take time off work or arrange for childcare whilst they go to an appointment to receive vaccination may be barriers too difficult to overcome (Duckworth, 2015; Gauld et al., 2022a). Furthermore, a lack of transport and costs for accessing services (e.g., buses, taxis, and accounting for unpaid bills) have also been previously described as barriers (Duckworth, 2015; Healy et al., 2015). With the extension of healthcare providers offering vaccination services such as kaiāwhina and local community pharmacies, these barriers may be reduced. Some midwives in this study also advocated for midwives providing vaccines as a way to improve coverage and this has been previously shown to increase uptake (Bisset & Paterson, 2018; Nowlan et al., 2015; Skirrow et al., 2020). However, this may not be an option for many midwives due to workforce shortages (Broughton & McKenzie-McLean, 2019; Collins, 2022) and lack of access to necessary resources (Dixon et al., 2017). Therefore, it is important for midwives to know about other “easy access” services in the community, such as pharmacies, Māori healthcare providers and other vaccine drop-in clinics, so these services can be recommended when discussing the importance of vaccination with pregnant women/people.

This study showed that the participant midwives understand the barriers faced by pregnant women/people in their day-to-day lives. Because of their experiences and knowledge of barriers in the community, midwives must be involved in policy and strategy consideration for vaccination programmes, including the widespread promotion of vaccines in the community (Wilson et al., 2019).

Overall, system changes are needed to support access to services for those who struggle to engage with them and those who may be hesitant to reach out. Resources, e.g., outreach services and

increased primary care service support, must be made available to reach groups that have been identified as disengaged and/or less likely to be vaccinated in pregnancy, to ensure equitable vaccination coverage in Aotearoa NZ.

Working with Māori and Pacific communities

Equitable access to healthcare and culturally safe health services must not be left to one group of healthcare providers to shoulder. In particular, the Māori world view must be recognised and incorporated into health system delivery. Co-design with Māori is necessary to ensure the health system is built in a way that supports the hauora of whānau Māori (MOH, 2020b). Until this is done we will continue to see a lack of trust and disengagement with services that will lead to continued poor vaccination coverage and worse health outcomes. More research is needed to develop interventions and health services that uphold the mana of whānau Māori to make decisions about immunisation and to access immunisation services.

STRENGTHS AND LIMITATIONS

This study offers insights into some midwives’ perceptions around enablers and barriers for discussions and provision of vaccination to pregnant women/people. Unfortunately, because of the increased pressure facing midwives working in Aotearoa NZ in 2021 due to the COVID-19 pandemic (L. Dixon, personal communication, October 13, 2021), we were unable to send follow-up requests for participation and enrolment into the study was ceased. This contributed to the low response rate. A limitation of this study is the small sample size, which affects the ability to draw concrete conclusions from the quantitative data.

There is also potential for selection bias where only participants with more interest in vaccination in pregnancy, and its promotion, responded to the survey (Bethlehem, 2010). This, along with the low response rate, limits the generalisability of the quantitative findings of the study. However, many findings do correlate with those from other Aotearoa NZ and international literature, and the qualitative data captured in the open responses lent strength to the study overall, providing insight into midwives’ views and experiences in practice.

This study identified that midwives may face challenges in talking with pregnant women/people about vaccination in pregnancy. Future research is needed to identify ways to best support midwives in these discussions. This includes increased support from the wider healthcare team, resources to support information provision, and specific education and tools to support conversations with people who are vaccine-hesitant. Research is also needed into interventions to support culturally safe approaches to provide recommendations to hapū Māori and Pacific people to vaccinate in pregnancy.

CONCLUSION

Midwives who participated in this study understand the importance of vaccination in pregnancy but some may not have the confidence, time or resources to effectively engage in discussions with the pregnant women/people under their care. Furthermore, barriers to accessing any healthcare provider, particularly GPs, may exist for many pregnant women/people, particularly those from areas of high deprivation. Access to wraparound healthcare for pregnant women/people may not be universally available and some people are left behind. It is imperative that, with changes currently underway in the Aotearoa NZ health system, all pregnant women/people are able to be accommodated in vaccination services to ensure adequate coverage and optimal health outcomes for them and their pēpi.

Having a trusting relationship is important when discussing health needs and sometimes this can be affected by disengagement with healthcare services, the effects of systemic racism or late presentation to healthcare services. Pre-existing negative ideas pregnant women/people have about vaccination and communication barriers make conversations difficult. It is imperative that the Aotearoa NZ government prioritises the provision of resources to help counter these issues and support midwives in their ability to provide useful information about vaccination in pregnancy. Midwives need resources in suitable formats for all pregnant women/people, the time to facilitate open and transparent discussions, and additional support from the wider healthcare team by them also providing this information. Furthermore, respect and cultural understanding of hapū Māori and their needs will enhance their ability to make informed decisions about vaccination in pregnancy.

GLOSSARY OF MĀORI TERMS

Māori word or phrase	English translation
Aotearoa	New Zealand
Hapū	Pregnant
Hauora	Health and wellbeing
Kaiāwhina	Helper, assistant, advocate
Mana	An individual's prestige, authority, influence, status, spiritual power and strength
Māori	Indigenous people of Aotearoa New Zealand
Oranga Tamariki	Ministry for Children
Pākehā	New Zealander of European descent
Pēpi	Infant
Tamariki	Child or children
Te Ao Māori	The Māori world, including language, protocols and customs, and the Treaty of Waitangi
Te Kāreti o ngā Kaiwhakawhānau ki Aotearoa	New Zealand College of Midwives
Whakapapa	Genealogy, lineage, descent
Whānau	Extended family, family group

Key points

- Appropriate resources are needed to support midwives to provide accurate and useful information about vaccination in pregnancy.
- Negative preconceptions about vaccination in pregnancy can make conversations difficult and adversely affect informed decision-making.
- Vaccination venues must be easily accessible and welcoming to encourage vaccination in pregnancy.

ACKNOWLEDGEMENTS AND CONFLICT OF INTEREST DISCLOSURE

We would like to thank the midwives who participated in this study. We would also like to thank Te Kāreti O ngā Kaiwhakawhānau ki Aotearoa | the New Zealand College of Midwives, who offered feedback on the study protocol and supported the recruitment and collection of data for this project. We acknowledge the Health Research Council of New Zealand for providing financial support through the Career Development Award.

The authors declare that there are no conflicts of interest.

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Accepted for Publication July 2023

- Young, A., Willing, E., Gauld, N., Dawson, P., Charania, N. A., Norris, P., & Turner, N. (2023). Midwives' perceptions of enablers and barriers to pertussis and influenza vaccination in pregnancy and information sharing. *New Zealand College of Midwives Journal*, 59, 29-38. <https://doi.org/10.12784/nzcomjnl59.2023.4.29-38>

AOTEAROA NEW ZEALAND RESEARCH

A vision of decolonisation: Midwifery mentoring from the perspective of Māori mentors

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Please note: This article was first published in September 2023 with the incorrect spelling of author Dinah Otukolo's name. The editors apologise for this oversight.

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ABSTRACT

Background: Mentoring is a valued form of professional and cultural support among midwives in Aotearoa (see glossary for Māori translations). Mentoring occurs both informally and via formal programmes, including Māori mentoring initiatives with taura, new graduate and rural midwives. International studies identify indigenous mentorship as a viable approach to supporting the retention and professional development of indigenous health workers. However, little research exists on the mentoring relationship from the perspective of Māori mentor midwives.

Objective: To examine the mentoring relationship from the perspective of Māori mentor midwives.

Method: This qualitative research used focus groups of Māori mentors, identified from the Find Your Mentor database, to explore their views of mentoring from a Māori perspective. A semi-structured topic guide used seven simple, open questions to stimulate discussion. Discussions were transcribed and analysed using Braun and Clarke's (2006) six steps of inductive thematic analysis.

Findings: A vision of decolonisation lies at the heart of the mentoring relationship for Māori mentor midwives. Mentors see their role as supporting mentees to navigate the challenges of a Pākehā health system, and to strengthen their midwifery practice through Te Ao Māori. Mentors describe how they are guided by the principles of tika and pono, and work to create a culturally safe space based on mutuality and trust through sharing kai and incorporating their whānau and that of the mentee into the relationship. Being a Māori mentor also fills the kete of the mentors. Māori mentors are sustained through being part of a midwifery hapū and experience joy and hope in sharing ngā taonga tuku iho with the next generation.

Conclusion: The decolonising approach to Māori midwifery mentoring has tangible benefits for Māori mentees and Māori midwifery. Māori mentoring activities evoke different experiences for Māori mentees, as evidenced by mentor behaviours that are unique within Te Ao Māori. Being part of Māori mentoring relationships also nurtures the resilience of the mentors.

Keywords: decolonising, Māori, mentors, midwifery, Aotearoa

INTRODUCTION

Mentoring relationships are a valued form of professional support among midwives in Aotearoa. Historically, midwives supported each other through informal mentoring relationships but, with the commencement of the Midwifery First Year of Practice programme (MFYP) in 2007, midwifery mentoring has become a formalised relationship and has been extended into the rural space with the addition of the Rural Midwifery Mentoring programme (2009). A survey of MFYP participants identified mentors as having a key role in reflection, understanding the wider picture and developing confidence for the mentee. A relationship of trust and a shared philosophy were also key components of the mentoring relationship for mentees, with participants identifying the importance of being able to choose the mentor themselves (Kensington et al., 2016). Extending this concept further suggests the need to provide the

choice for a matching of ethnicity of the mentor and mentee, to incorporate Te Ao Māori. While Aotearoa does not currently have a Kaupapa Māori midwifery mentoring programme, within these existing programmes Māori mentee midwives are matched, where possible, with Māori mentors to provide support that is culturally safe and relevant. More recently, mentoring initiatives with Māori midwifery taura have been established in the midwifery schools to provide cultural support and pastoral care from the first year of study onwards.

The development of Kaupapa Māori midwifery mentoring models and programmes has been identified as a strategic priority for improving workforce sustainability and retention of Māori midwives in Aotearoa (Te Huia, 2020; Tupara & Tahere, 2020). Currently, however, there is little research on Māori midwives' experiences of mentoring, their perspectives on the role of the

mentor and how they practise mentoring as Māori within existing frameworks and programmes. This article reports the findings from focus group interviews with Māori mentor midwives, on their perspectives on the mentoring relationship, how they mentor both within existing programmes and informally, and how mentoring impacts them as midwives. These findings are part of a larger project that examined midwifery mentoring overall in Aotearoa, from the mentors' perspective.

BACKGROUND

The mentoring consensus statement of Te Kāreti o ngā Kaiwhakawhānau ki Aotearoa | New Zealand College of Midwives' (the College) defines mentoring as a negotiated partnership between two midwives, with the purpose of enabling and developing professional confidence (Gray, 2006). The framework for midwifery mentorship outlined in the statement is "based on midwives supporting their peers in a negotiated partnership and is therefore seen as an equal relationship with no hierarchical principles", marking this model as distinct from similar relationships of preceptorship or professional supervision (Gray, 2006, p. 26). What occurs in the course of the mentoring relationship can be expected to differ in some respects depending on the mentee midwife's professional and personal needs (Gray, 2006). In the existing formal definitions, the mentoring partnership is understood as primarily a one-on-one relationship between two individuals, which focuses on the specific professional needs of the individual being mentored.

International studies identify indigenous mentorship as a viable approach to supporting the retention and professional development of indigenous health workers (Murry et al., 2022). Indigenous mentoring has been found to exhibit unique behavioural themes, such as being mentee centred, having a focus on advocacy, self-advocacy and relationalism, and fostering cultural protocols and indigenous identity (Murry et al., 2022). In Te Ao Māori, the Western concept of a mentoring relationship is most akin to the tuakana-teina relationship. The tuakana-teina relationship was traditionally a kin-based relationship between older relatives or senior branch of the family (tuakana) and younger relatives or junior branch of the family (teina). While tuakana may have greater experience and knowledge, this comes with the responsibility of holding and sharing mātauranga Māori and learning from their relationship with teina how to be tuakana (Winitana, 2012). The tuakana-teina relationship is regarded as of reciprocal benefit, often occurring within a collective or whānau context and motivated by its attending to the wellbeing and enhancement of the whole community (Hook et al., 2007). Currently, there is no formal definition of Māori mentoring in midwifery in Aotearoa.

METHOD

For this research a qualitative approach was taken in order to gain a more detailed understanding of the experiences of Māori mentor midwives. Qualitative methods address questions concerned with the social contexts and meanings, and the subjective experiences of the participants. The project consisted of a series of focus groups of mentor midwives from a number of different practice and cultural backgrounds from across Aotearoa, including Māori, Pasifika, rural, community and core midwifery perspectives. This article reports on the findings from the focus group with Māori mentor midwives. While the project was conceptualised collectively by the wider research group, the branch of the project examining mentoring from the perspective of Māori mentors was led by Māori researchers, who used a Te Ao Māori approach to planning and undertaking the data collection and the analysis. Findings from other focus groups will be published in subsequent articles.

The participants were regarded as expert informants with unique socially, culturally and topographically grounded midwifery knowledge and mentoring experience. Focus groups were chosen as the preferred format for their ability to gain access to participants' contextually based knowledge and collective understanding based on their shared experiences and to allow participants to contribute to guiding the discussion (Belzile & Öberg, 2012; Kitzinger, 1994; Kook et al., 2019).

The format of the focus groups was semi-structured, using a topic guide of seven simple open-ended questions intended to stimulate discussion on the research topic. This semi-structured and adapted approach allowed for participant-led discussion on midwifery mentoring, while providing enough structure to enable comparison across other focus group findings that were part of the wider research project.

Recruitment and ethics

The participants were recruited via the College's Find Your Mentor database. The inclusion criteria were Māori mentor midwives who were listed on the database, and who had actively engaged in a mentoring relationship as a mentor in the past three years. Four participants attended the focus group, with a fifth Māori mentor (researcher NP) facilitating. Participants came from a range of midwifery backgrounds and practice settings, including community, rural and hospital midwifery, and midwifery education. They were geographically dispersed across Aotearoa and, collectively, had 37 years of mentoring experience. The focus group was held in early 2020 via Zoom due to COVID-19 travel restrictions and lasted approximately three hours.

Transcripts of the focus group recordings were de-identified, including names of all individuals, maternity units, geographic locations and pepeha to protect the identity of participants, before undergoing analysis by the research team. Ethics approval was granted by the Ara Institute of Canterbury Research Ethics Committee (#1856).

Data analysis

A thematic analysis, following the six-phase process developed by Braun and Clarke (2006), was used to identify and thematise patterns in the dataset. Thematic analysis was chosen because it allows for both a rich description of the dataset as well as an in-depth interpretation of individual data items (Braun & Clarke, 2006; Braun et al., 2016). It also provided an analysis process flexible enough to support the development of four standalone analyses of the different focus group types. The analysis process led by researchers NP and SD was iterative, involving reading and rereading the data to draw out and refine dominant themes in the participants' focus group discussion.

FINDINGS

Four core themes were identified in the thematic analysis, with each theme containing several subthemes. The themes speak to how participants understood and undertook their role as a Māori mentor midwife, and their perspective on the significance of the mentoring relationship for Māori midwives, the midwifery profession and themselves.

Decolonising

When asked what a mentor does, Māori mentors began the focus group discussion by speaking about decolonisation. The project of decolonisation was identified by mentors as the underlying purpose of becoming a mentor and continuing to mentor, and this approach was seen to support the growth of the mentee as well as that of the wider profession

Table 1. Thematic analysis: Midwifery mentoring from the perspective of Māori mentors

Theme	Subtheme
Decolonising	Decolonising Te Ao Pākehā
Te Kai a te Rangatira	Creating a safe space Whakawhanaunga
Te Ao Māori	Tika and Pono Whānau
Filling the kete	Hapū Ngā taonga tuku iho

Decolonising

Mentors identified that the need for colonial institutions (both educational and clinical), and the midwifery culture that may be established through them, to be decolonised was an important motivator for them taking up the role of mentor. As one participant put it, “I think for me, the culture of midwifery needs to be decolonised” (FG7-2), while another elaborated, “[...] they get enough from their lecturers to do the academia side of things, but I don't think there is enough kaupapa Māori, mātauranga Māori being utilised... so that's how I see my mentoring role” (FG7-4).

Mentors also described how they were motivated to become mentors by their own experiences of institutional racism and wanting to help to change that culture.

I just want to say that what drew me into mentoring was the negative experiences that I had as a student midwife, and I sort of made a pact to myself that I would never mentor the way that I had been shown because that was really negative. And being Māori I think made it even harder, because there was that – now that I know the institutional racism that was going on – that was like, “This is not OK. So, when I'm a mentor I'm going to change the way that I do that for these young midwives that are coming through”. (FG7-4)

The mentoring relationship was discussed as a site for internal decolonisation for both mentee and mentor, through reconnecting with and reclaiming a Māori approach to midwifery. This involves reflecting on and translating their midwifery experiences and practice through Te Ao Māori.

I mentored a midwife who was intimately involved in an [incident] that occurred at [a hospital]. The mentee midwife happened to be the only person who was on duty at that time who put her hand up and said “I'm going in that room with that young wahine”. Because nobody else would.... We were able to have a bit of a debrief with our cultural advisor, and that really helped her, me, us together in our mentor/mentee relationship to break that whole perspective down from a Te Ao Māori perspective, looking in at it. It really helped us together to ground that situation and to sort of look at it through a different lens, through a Te Ao Māori lens. (FG7-4)

Decolonising mentoring also includes redefining what and who is a mentor. Most participants expressed discomfort with the word “mentor”, as expressed in the following interaction: “For me, I struggle with the word “mentoring”. For me, I actually had to go back to my whānau and ask like, ‘Am I a mentor? What does that mean within us?’” (FG7-1); “I guess, like [FG7-1] I don't see myself as a mentor or anything per se” (FG7-3). Further, mentoring was identified as a Pākehā concept that suggests a hierarchical relationship between two individuals.

Te Ao Pākehā

A key part of the mentors' decolonising approach to mentoring was helping their mentees to decode and navigate Te Ao Pākehā through Te Ao Māori and sharing the tools to work as midwives in a Pākehā health system, in a way that is culturally safe for them.

For me, it's about making sure she has the tools to be able to walk in this Pākehā system... So for me, mentoring is about highlighting to the mentee that sometimes you don't have to tolerate things that are going on and you can really be a true advocate for your māmā and your whānau. And how can you do that safely, obviously without having your mana trampled on and also your mentee's. (FG7-4)

A decolonising approach to mentoring is not aimed at adjusting the mentee to a Pākehā system but to support her to walk in that system with her mana intact.

You know, the first thing I learnt when I was a student was you got to know your systems. You got to know what their policies are, what their guidelines are. Why do you need to know that? So you can understand it, so you can interpret it for yourself and for the women that you support. If you cannot understand the system and why it works the way it works then how can you support women when they are challenged by the system? (FG7-2)

The quotes above emphasise that such an approach is important not only at the level of the individual mentee, but for māmā and whānau Māori as a whole.

Te Kai a te Rangatira

Mentors spoke about the importance of creating a culturally safe collective space for mentees, mentors and whānau at the beginning of the mentoring relationship. This is a space in which whakawhanaunga can then occur through the sharing of kōrero and kai.

Creating a safe space

Mentors discussed creating a space at the start of the mentoring relationship through bringing taurira or mentees and mentors together in a way that is culturally safe.

...having safe space for Māori and for students is really important. When we're ready we can take our Pākehā colleagues out to tangi, out to waiata and things like that, but there has to be safe space within Māori, for Māori. (FG7-3)

A key element of a culturally safe space is that it allows the mentee to be vulnerable and to be able to safely share this vulnerability. One participant explained the importance of vulnerability as follows: “Yes, they need to be vulnerable. For you to be able to, I've just got to say this for myself, you've just got to be courageous and vulnerable, and you can't do that without a safe space” (FG7-1).

At the same time, mentors identified that the mentoring relationship is also one in which they themselves can be vulnerable, and how they ensured that a relationship was also going to be a safe space for them.

It's not hard thinking when you're actually with Māori. And I tend when I work with Pākehā to actually not go there. It makes my job harder, whereas with Māori it's not hard to do the mahi you need to and to pass that knowledge on. (FG7-2)

Ae, and I'll make them come round home first, because how vulnerable is that to have someone come into your whare and meet my whānau? So, always before I sign up to

anything I go, "Come around home. Let's get to know each other there." And then that's when I feel and I can figure out whether we're going to partner well or not, whether we are both going to be safe. Because it is, is about both of us. (FG7-1)

A safe mentoring space is easier for Māori mentors when working with Māori mentees. Strategies such as including whānau in the relationship and finding connections through whakapapa are used by Māori mentors to make the mentoring space one of mutual safety and vulnerability.

Whakawhanaunga

Once this space is created whakawhanaungatanga can be built. The sharing of kai was identified by mentors as a key aspect of the mentoring relationship in this regard and, as one participant explained, "... we feed our whānau all the way through their training" (FG7-3). Another participant described how kai is integrated into the mentoring of taurira:

What we've done in our region is we create a little hapū and we'd have a shared kai once a week for our taurira. And we noticed with that, it's amazing, just that shared kai and there'd be some Māori that couldn't speak Māori or didn't know karakia or didn't do those things. And it was just being around their peers and in an environment they were comfortable, you could see that all starting to shine and come through and I just really, I just loved watching that. (FG7-1)

Sharing kai with mentees is nurturing on a number of levels, and it is a basis for creating a space of equal power balance, mutual trust and connection. 'Te kai a te Rangatira', that is, the food of the chiefs, is language and communication, which also occurs over kai.

Te Ao Māori

Mentors identified key principles and values from Te Ao Māori that underpin how they mentor Māori midwives and taurira and guide their conduct within the relationship. This discussion centred on the principles of tika and pono and the value of whānau.

Tika and pono

Mentors identified the concepts of tika and pono as the cornerstones that guide how they act and support the mentee within the mentoring relationship. While the needs of individual mentees differ and each relationship is unique, the guiding principles of what is right and what is correct stay the same.

Like we were saying, even if it's just to go for a kai, is it about the food or is it about the whanaungatanga of that whole experience? Which is more important to us as Māori because we operate on what is tika and what is pono, what is right and what is correct. Those things, we'll never let go because they are inherent within us, we always will wear that same korowai, it doesn't matter in which space that we walk. I definitely won't take my korowai off, it doesn't matter where I go, and I'm sure we all feel the same. (FG7-4)

While tika and pono guide the mentor in supporting her mentee, these core principles also guide her in her role as a midwife supporting whānau Māori.

I think the other thing about being a mentor – and whether it's students or whether it's being with midwives – is if it's tika and pono, you do it. It has always guided me, even when I've thought, "Oh man, I am going to a place where I don't want to be," is this my journey or is this the woman's journey? And if it's her journey, I just do it. (FG7-2)

Whānau

Mentors recognised the importance of whānau in respect to their mentees' practice lives and sustainability as well as to their own. Māori mentors incorporate whānau into the mentoring relationship and saw this as supporting mentees to recognise and balance their responsibilities to the whānau they care for as midwives and to their own whānau.

It's also about our whānau. So, I think we've missed that in our midwifery, in our teaching, and when Māori come through from the first year they're told to put their whānau to the side really, that our wāhine whānau come first. I can only speak for me and my whānau but that doesn't work for us and it hasn't worked for taurira that I have had for the last 7 years. (FG7-1)

For some mentors, their own whānau are part of their midwifery practice and mentoring relationships also. Whānau members can play the role of mentor to the mentors themselves and become involved in mentoring the whānau of mentees.

Part of my whānau, my husband and my tamariki, they all know that midwifery is in this whare, this is how it is, you have to be a part of it. Which is really good because what's happened is my tane has become really good at being a good support person for the taurira tane. (FG7-1)

Filling the kete

Kete are used to carry kai, that which sustains us and makes us feel well, whole and healthy. Mentoring nourishes and contributes to the sustainability of Māori midwives through being connected to a collective, and through the satisfaction and reassurance they experience from sharing the taonga of knowledge with another generation of Māori midwives.

Hapū

Mentors explained how, by being part of a hapū of Māori midwives, they were able to gain strength from each other to walk through the challenges and frustrations of a colonial system together. For example, "I think the greatest thing is that you end up being with a collective with a common kaupapa so the best thing for me is I sort of navigate people like minded, which fills my kete as well" (FG7-1). This was elaborated by another participant:

I think there's a, not an anger, but there's a frustration in the system. So, whether it's the tertiary [education] system or the midwifery system, often it's not being heard for the midwives. Or the sense of having to follow the system that can be destructive to their inner being, their mana. But if we walk through it together, particularly with our midwives, then I don't see the frustrations, I see the excitement of the students you know, the breath of fresh air in terms of what they want to practise, how they want to practise as Māori, and it's invigorating to see that. So, it keeps you young. (FG7-3)

The youthfulness and excitement of taurira and young midwives wanting to practise Māori midwifery was valued by mentors, as it kept them feeling positive and excited about the future of midwifery.

Ngā taonga tuku iho

Māori mentors feel a responsibility to pass on their knowledge to other Māori midwives in the profession.

It's like it's our way of giving back to our profession, because we're not going to be around forever, but our young midwives who are coming up behind us are going to be a bit longer in

it than we will be. So we can't hold that knowledge and that mātauranga and not give it to anybody. (FG7-4)

Mentors also reflected that by taking a decolonising approach to mentoring and supporting Māori midwifery this likely supported their own longevity as midwives.

All Māori midwives are pioneers in their own right and for me it's a privilege to have a balance on the profession, have a balance on myself, have a balance on who I work with. If we can carry that balance, it balances us to keep going really. It's such a passion and I hear that from my colleagues today, and it doesn't go away. So, we are in it for the longevity and I like the talk of positivity, and change is good. (FG7-3)

The quotes above highlight that the practice of sharing their knowledge and being part of mentoring relationships is nurturing and sustaining for the mentors as well.

DISCUSSION

This study set out to explore the mentoring relationship from the perspective of Māori mentor midwives. Research on midwifery mentoring in Aotearoa in the past has largely focused on the mentees' experiences of mentoring, with less attention given to the mentoring relationship from the perspective of mentors (Dixon et al., 2015; Kensington, 2006; Pairman et al., 2016). No researchers have explicitly explored the mentoring relationship from the perspective of Māori mentor midwives. Research by Bilous (2018) on midwives' experiences of supporting student midwives found that midwives were motivated to work with students by a desire to sustain the profession and by their own negative experiences as a student. This was also identified as of reciprocal benefit for midwives. One participant who identified themselves as Māori described this as feeling a responsibility to nurture future generations of Māori midwives, also noting the flow-on effect in nurturing generations of whānau (Bilous, 2018). These findings reflect some of the sentiments shared by Māori mentors of their motivation for nurturing new generations of Māori midwives: to counter institutional experiences of racism, to grow the profession, and because this also filled their own kete and sustained them in the profession.

Our findings also affirm those from international research on indigenous mentoring in health. Murry et al. (2022) found that indigenous mentors practise and role model an ontology of relationalism through reciprocity and trust, and are guided by indigenous ethics which include following and fostering traditional protocol and etiquette. This is reflected in our themes of *Te Ao Māori* around the importance of tika and pono, and discussions of creating whanaungatanga and safe cultural spaces in *Te Kai a te Rangatira*. Indigenous mentoring can also be seen as decolonising in that it focuses on affirming and connecting mentees with their indigenous identity and provides a space for deconstructing and navigating colonial institutional structures from an indigenous perspective and as indigenous people (Murry et al., 2022). These latter findings likewise complement our themes of *Filling the Kete* and *Decolonising*.

A decolonising approach to mentoring

The findings from this analysis suggest that Māori mentors' perspective of the mentoring relationship does not reflect the formal definition of a negotiated partnership between two individuals. Instead, it offers a new perspective on midwifery mentoring and provides important insight into the ways that a Māori approach to midwifery mentoring is unique, and distinct to mentoring approaches adapted from other cultural backgrounds in

Aotearoa. Even when mentoring within existing frameworks and programmes that do not explicitly incorporate a Kaupapa Māori approach, Māori mentors employ an approach to mentoring that is best described as decolonising.

Decolonisation in the context of Aotearoa can be defined as a process which focuses on the restoration of indigenous lands and ways of life (Mercier, 2020). Decolonisation requires that "power imbalances are addressed, that negative effects of colonisation are peeled away and that pre-colonial ways are revived – often starting with language education and social practices of tikanga" (Mercier, 2020, p. 53). Mana wahine theorists argue that the involvement of wāhine Māori is crucial to the success of decolonisation, because their daily lived experience is one of navigating the intersections of colonialism, patriarchy and capitalism (Pihama, 2020; Simmonds, 2017). A decolonising approach to midwifery mentoring is informed by a desire, on the one hand, to challenge the structural inequities embedded in the institutional culture of the current health system and, on the other, to reclaim Te Ao Māori, tikanga and cultural identity as part of midwifery practice.

The thematic analysis illustrates how Māori mentors' approach to mentoring is decolonising on multiple levels. Firstly, the decolonising approach offers a collective response to navigating a Pākehā education and health system both as Māori midwives and as wāhine Māori. Naomi Simmonds advocates for a collective approach to "reclaiming the messages and embodied practices left to us by our ancestors" about pregnancy, birth and afterbirth, as this can facilitate a "decolonised pathway" for future generations to follow (Simmonds, 2017, p. 112). The mentors' kōrero emphasised the mutual support and strength that is gained through being part of a mentoring relationship to walk and work in a Pākehā system, and the important role this relationship can play in protecting the mana of Māori midwives and whānau through this process.

Walking in Te Ao Pākehā is not about adjusting oneself to colonial systems and fitting into Pākehā institutions. Māori mentors and mentees work to consciously ground themselves within Te Ao Māori in order to decode their experiences and reflect on their actions from a Māori standpoint. As such, Māori mentors facilitate mentees' awareness of their own cultural safety and cultural need when entering work settings and situations in which cultural difference is apparent (for example, providing care for a Pākehā family in a hospital setting).

Grounding oneself in Te Ao Māori to work in Te Ao Pākehā can also be akin to a sort of internal decolonisation process for both the mentor and mentee. It is well recognised that decolonisation begins in the mind and is therefore always also an internal process (Mercier, 2020; Smith, 1999; Thiong'o, 1986). Furthermore, Leoni Pihama acknowledges that because of the colonial patriarchal discourses that have been disseminated about wāhine Māori since European colonisation, the need to "decolonise that which we have internalised about ourselves" (2020, pp. 360-361) is a crucial aspect of decolonisation for wāhine Māori in particular.

Another expression of a decolonising approach to mentoring, through a conscious grounding in tikanga and Te Ao Māori, is the definition of the mentor's role and conduct through the principles of tika and pono. These principles refer to what is correct and what is right or true to the values of Māori (Mead, 2006). Tikanga is recognised as central to the process of decolonisation because it is the original value system of Aotearoa (Jackson, 2020). Indeed, Māori mentors emphasised that the principles of tika and pono are not exclusive to the midwifery mentoring relationship but guide their conduct in all relationships and situations as Māori. Mentoring is just one responsibility that comes with the korowai

they wear as wāhine Māori. This may also have a bearing on why Māori midwives become mentors in the first place, because it is tika and pono to do so.

The theme *Te Kai a te Rangatira*, takes its name from the whakatauki “He aha te kai a te rangatira? He kōrero, he kōrero, he kōrero”, which translates as the sustenance of the leader is kōrero, that is, communication and language. Our study’s findings illustrate how the mentoring relationship for Māori mentors regularly revolves around the practice of sharing kai, an activity that is not about the food itself so much as the whanaunga, connections, mutuality and trust that are built through the communication which occurs over kai. While mentoring relationships may occur over a shared meal for non-Māori midwives, the sharing of kai has an additional cultural significance in Te Ao Māori. Historically, the practice of sharing kai required all parties to lay down their weapons to eat, making it a significant act of mutual trust and vulnerability.

Tikanga around kai is an important decolonising practice for Māori mentors, as it enables them to create a space not only for kōrero but, more specifically, for reintroducing te reo and tikanga Māori into the mentoring space. For example, mentors described how mentees and mentors were exposed to kupu Māori through waiata and karakia, and how food created a space and time that was whānau centred. This is similarly noted by Simmonds in relation to creating a space in which birthing tikanga can be practised and “reclaimed”, and who also observed that reclaiming tikanga is a practice of “reclaiming ourselves” (Simmonds, 2017, p. 122). As such, *Te Kai a te Rangatira* is another expression of an approach to mentoring that holds decolonisation at its centre, as mentoring creates the conditions, the space and the time for Māori midwives to reclaim and affirm their cultural identity.

The phrase ‘ngā taonga tuku iho’ in the final theme *Filling the Kete*, translates as ‘the treasures handed down to us by our ancestors’. Māori mentors regard their role as one of both using the gifts that have been handed down to them and sharing these with subsequent generations. These include mātauranga and tikanga Māori, te reo, relationships and the knowledge of how to create that mentoring space to navigate a Pākehā system collectively. Hook et al. (2007) note that a group approach to mentoring is often preferable for Māori because it enhances the influence of whakapapa and tikanga tuku iho in the relationship. This is affirmed in our study by mentors’ descriptions of the mentoring relationship as being part of a hapū.

For the mentors in our study, the mentees are also a gift, which sustains them as midwives by keeping them grounded, passionate and humble. These aspects of the mentors’ experience – a generational collective relationship that involves sharing ancestral knowledge and reciprocal learning and benefit – reflect the characteristics of the tuakana-teina relationship as described earlier. The value placed on mentors, sharing the gift of knowledge and the gifts they receive in return to keep them strong and in the profession, shows an awareness that decolonisation is a collective, intergenerational and ongoing process.

Thinking decolonisation in midwifery

While the Māori mentors in our study are often providing mentorship through Pākehā-based mentoring programmes, it is clear that how they define and practise mentoring is grounded in a distinctly Māori perspective. Several recent reports have identified Kaupapa Māori mentoring for students and new graduates as ‘critical’ for growing the Māori midwifery workforces (Tupara & Tahere, 2020). This is because Māori midwifery students in midwifery programmes across Aotearoa are known to have a high attrition rate (up to 84% over a 10-year period), while Māori midwives also spend fewer

years in the profession than non-Māori (Tupara & Tahere, 2020). A decolonising approach to the mentoring relationship may be beneficial for improving retention by providing Māori midwives with the hapū, knowledge and safe cultural space and time to foster and affirm their cultural identity as Māori midwives and to navigate a Pākehā system as Māori for Māori.

One benefit of a decolonising approach within midwifery is its ability to create hapū which help to ground Māori midwifery practice within Te Ao Māori and sustain and nurture the resilience of Māori midwives. Mentors’ experiences of practising Māori midwifery suggest that taking a decolonising approach is not always easy. Racism and bullying are reasons given by some Māori midwives for leaving the midwifery profession (Tupara & Tahere, 2020), and practising as a Māori midwife can be met by a lack of understanding and hostility. Moana Jackson (2020) observes that when faced with the implacability of colonial power, decolonisation requires courage and a recognition that it is an ongoing generational process. It is in this context that the collective, reciprocal, nurturing and whānau-centred aspects of the Māori midwifery mentoring relationship, and the possibility it creates for culturally safe spaces for Māori midwives, are not only important for individual mentees and mentors engaged in them, but for the future of the profession.

Key points

- This study examines the midwifery mentoring relationship from the perspective of Māori mentor midwives.
- A vision of decolonisation lies at the heart of the mentoring relationship for Māori mentor midwives.
- A decolonising approach to mentoring not only benefits the mentees, but also nurtures the resilience of the mentors and supports Māori midwifery as a whole.

CONCLUSION

This study contributes to the currently sparse literature on Māori midwifery mentoring through elaborating a definition of the mentor’s role and the mentoring relationship from the perspective of Māori mentors. While we are drawing on results from a small sample of one focus group, the research participants came from across a wide range of midwifery practice settings – community, hospital, rural, midwifery schools – and held almost 40 years of collective mentoring experiences between them. The findings on the decolonising approach to mentoring elaborated in this paper may also be of interest in broader discussions about indigenous mentoring and models of Māori mentoring in Aotearoa used in other professions. They affirm but also move beyond a descriptive analysis of the tuakana-teina relationship and, unequivocally, situate Māori mentoring within a Pākehā system as a decolonising practice.

Approaching mentoring as a process of internal, external and intergenerational decolonisation is about seeking to transform institutional inequities and reclaiming Te Ao Māori for Māori

midwifery. A decolonising approach to Māori mentoring may support the growth and stability of the Māori midwifery workforce, by creating space where Māori midwives do not have to leave their Māori-ness at the door and which, in turn, provides a sense of fulfillment and satisfaction for the mentor midwives. This can have a flow-on effect for māmā and whānau Māori who are then more able to access Kaupapa Māori and midwifery care that is safe and relevant for them.

GLOSSARY OF KUPU MĀORI

Aotearoa	New Zealand
Hapū	Kinship group, to be pregnant
Kai	Food, meal
Karakia	Prayer, chant
Kaupapa Māori	Māori approach, customary practices
Kete	Basket, kit
(Fills the) Kete	Sustains, nurtures
Kōrero	Speech, conversation
Korowai	Cloak
Kupu	Words, vocabulary
Mahi	Work
Māmā	Mother
Mana	Dignity, spiritual power in people, places, objects
Mana wahine	Māori feminist framework
Māori	Indigenous person of Aotearoa
Mātauranga	Knowledge, wisdom
Ngā taonga tuku iho	Heritage/cultural property
Pākehā	Person of European descent living in Aotearoa
Pepeha	Introduction in a Māori context, including one's ancestry
Pono	To be true, honest
Rangatira	Leader, chief
Tamariki	Children
Tane	Husband, man
Tangi	Funeral ceremony
Taonga	Treasure
Tauira	Student
Te Ao Māori	The Māori world, Māori world view
Te Ao Pākehā	The Pākehā world, Pākehā world view
Te kai a te Rangatira	The sustenance of leaders
Te reo Māori	The Māori language
Teina	Younger relative (and/or junior branch of family)
Tika	To be correct, just
Tikanga	Correct procedure, customary protocol
Tuakana	Older relative (and/or senior branch of family)
Wahine	Woman
Wāhine	Women
Waiata	Song
Whakapapa	Genealogy
Whakatauki	Proverb
Whakawhanaunga/tanga	To have a relationship – process of establishing a relationship
Whānau	Family group, to be born
Whanaunga/tanga	Relationship, sense of connection
Whare	House, dwelling

CONFLICT OF INTEREST DISCLOSURE

The authors declare that there are no conflicts of interest.

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Accepted for Publication July 2023

Pihema, N., Daellenbach, S., Te Huia, J., Dixon, L., Kensington, M., Griffiths, C., Gray, E., & Otukolo, D. (2023). A vision of decolonisation: Midwifery mentoring from the perspective of Māori mentors. *New Zealand College of Midwives Journal*, 59, 39-46.

<https://doi.org/10.12784/nzcomjnl59.2023.5.39-46>

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TE KĀRETI O NGA KAIWHAKAWHANAU KI AOTEAROA

INTEGRATIVE LITERATURE REVIEW

The lactation and chestfeeding/breastfeeding information, care and support needs of trans and non-binary parents: An integrative literature review

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ABSTRACT

Background: The National Breastfeeding Strategy launched by the Ministry of Health in 2020, commits to the protection, promotion and support for breastfeeding with the aim of increasing exclusive breastfeeding rates in Aotearoa New Zealand. This strategy includes a recommendation that the breastfeeding/chestfeeding information and support needs of trans and non-binary parents and their whānau are identified so that those involved in their care are knowledgeable about these specific needs. Midwives are the primary providers of lactation and breastfeeding/chestfeeding information, care and support for most pregnant people in Aotearoa New Zealand.

Aims: An integrative literature review was undertaken: to ascertain the specific lactation and chestfeeding/breastfeeding information and care needs for trans, non-binary, takatāpui and other gender diverse whānau; to consider the implications of this knowledge for contemporary midwifery in Aotearoa New Zealand; and to identify continuing research needs.

Method: Literature for this integrative review was primarily sourced through the Ovid Online Database using search terms pertinent to the topic and limited to articles published in peer reviewed journals in English, excluding editorials, commentaries and opinion pieces.

Findings: Literature about trans and non-binary parents and chestfeeding/breastfeeding, although increasing since 2010, is limited internationally and absent nationally. From extant literature, connections between healthcare barriers and the negative experiences of trans and non-binary parents are identified and explored in three overarching themes: the foundations of Western perinatal healthcare systems; the invisibility of trans and non-binary people within perinatal healthcare systems; and the lack of perinatal healthcare provider knowledge.

Conclusion: Cis-normative, gender binary foundations are omnipresent in perinatal healthcare, rendering trans and non-binary people invisible, and excluded from this space. These factors contribute to the limiting of perinatal healthcare provider knowledge, an overwhelming finding in the literature. The absence of locally produced literature presents scope for research production here in Aotearoa New Zealand, exploring this topic from our unique cultural contexts. Such contributions may help inform whether adaptations and additions to current midwifery education are necessary to support midwives in the provision of equitable, safe, culturally appropriate, gender-inclusive care.

Keywords: transgender, non-binary, chestfeeding/breastfeeding, gender-inclusive care

Trans and non-binary inclusive language

This review uses trans and non-binary inclusive language to describe body parts and other terms related to reproductive embodiment and perinatal care that may be considered feminised and therefore not affirming of trans and non-binary people (Green & Riddington, 2021). One of the key principles of inclusive language is that trans and non-binary people are able to self-determine the language about their gender and body parts that affirms them. Reference to chestfeeding/breastfeeding in this review reflects the language used to affirm trans and non-binary people's lactation needs in the National Breastfeeding Strategy for New Zealand Aotearoa | Rautaki Whakamana Whāngote (Ministry of Health, 2020). The strategy was developed in consultation with people representing the LGBTQIA+ community.

INTRODUCTION

Not all people who breastfeed/chestfeed are women, yet every person who hopes to feed a baby from their body deserves the information, care and support required to do so. For many midwives in Aotearoa NZ, breastfeeding/chestfeeding is a natural extension of one of the grounding philosophies of midwifery: that birth, although transformational, is a normal physiological event (New Zealand College of Midwives [NZCOM], 2009).

As the primary providers of information and support throughout the perinatal period, midwives have an important role in the education and support of whānau with lactation and breastfeeding/chestfeeding. This is clearly identified within the *Midwifery Scope of Practice* (Te Tatau o te Whare Kahu | Midwifery Council, n.d.). Practice responsibilities are outlined in the NZCOM Consensus Statement: Breastfeeding (NZCOM, 2016). Midwives in Aotearoa NZ are guided by standards of midwifery practice, competencies for entry to the register of midwives, Turanga Kaupapa (see glossary), holistic care and the code of ethics, described in the *Midwives Handbook for Practice* (NZCOM, 2015). Application of these and the concepts described in *The Midwifery Partnership: A model for practice* (Guilliland & Pairman, 2010) place midwives in an excellent position to provide safe, culturally appropriate infant feeding care and support, irrespective of the parent's gender. Further impetus for the provision of gender-inclusive care is provided by the International Confederation of Midwives' (2017) *Position Statement: Human Rights of Lesbian, Gay, Bisexual, Transgender and Intersex (LGBTI) People*.

Despite these positive intentions, there is agreement that the knowledge level of Perinatal Healthcare Providers (PHCP) is currently inadequate to appropriately meet trans and non-binary perinatal healthcare needs (Charter et al., 2018; Falck et al., 2021; García-Acosta et al., 2020; Hoffkling et al., 2017; Martinez et al., 2020; Roosevelt et al., 2021; Wolfe-Roubatis & Spatz, 2015).

During 2021 the Ministry of Health (MOH) launched the *National Breastfeeding Strategy for New Zealand Aotearoa | Rautaki Whakamana Whāngote* (MOH, 2020), acknowledging breastfeeding as a key determinant of health. The strategy presents nine outcomes outlining a commitment to the protection, promotion and support of breastfeeding, with the aim of increasing the exclusivity and duration of breastfeeding. Each of the nine outcomes is detailed with its own set of actions to guide change. Outcome one, "Breastfeeding parents and their whānau have equitable access to a range of culturally appropriate breast and infant feeding supports" (MOH, 2020, para. 1), is scaffolded by nine actions. Action seven asks that the breastfeeding/chestfeeding information and support needs of trans, non-binary, takatāpui and other gender diverse parents and whānau are identified, so that those involved in their care are knowledgeable about these specific needs (MOH, 2020, para. 7). It is this action that provides the foundation for this integrative literature review.

AIMS

The aim of this literature review was to explore what is currently known about the lactation and infant feeding care and support needs of trans and non-binary parents, to consider the implications for midwifery practice in Aotearoa NZ and to identify additional research needs.

METHOD

Understood as being useful for gaining "understanding of people's needs and experiences" (Griffith University, 2023, para. 7), an integrative review goes beyond simple description of the literature. Through a process of defining a question, undertaking a literature

search and the evaluation of data, themes are analysed, interpreted and presented (Bowden & Purper, 2022).

Literature for this integrative review was sourced using the Ovid Online Database. Search terms included: lactation, breastfeeding, chestfeeding, postnatal care, perinatal care, midwi*, maternity nurse, obstetric nurse, and various spellings and iterations of transgender, non-binary and gender diverse. Boolean operators AND/OR were applied to group subjects in a variety of configurations. PubMed and Google Scholar search engines were also accessed, and reference lists from sourced literature were hand searched to identify additional relevant literature. No limits were placed on date of publication. Literature was included if it was published in English in a peer reviewed journal and had an emphasis on trans and non-binary perinatal care, including lactation, chestfeeding/breastfeeding or midwifery care. Literature not published in peer reviewed journals, editorials, commentary, opinion pieces and literature focused on perinatal care for trans and non-binary people with only brief reference to lactation, chestfeeding/breastfeeding or infant feeding were excluded (Figure 1).

FINDINGS

Overview

The 25 papers included in this review were comprised of original research (9), clinical practice papers (9), literature reviews (6) and one lactation protocol. Nineteen of the 25 papers were published in the United States (U.S.). All papers were published between 2010 and 2022. Lactation and infant feeding content in 14 of these papers were incidental findings resulting from the exploration of the fuller perinatal spectrum, including in original research studies by Charter et al. (2018), Falck et al. (2021), Hoffkling et al. (2017) and Richardson et al. (2019). This has led to the specifics of individual phases of perinatal care being under-examined. It is noteworthy that many of the references used in these papers are the same. Themes identified across this literature may therefore be over-represented. This reflects the limited original research available in this space and demonstrates that additional research exploring trans and non-binary infant feeding practices is warranted.

Considered foundational research, MacDonald et al.'s (2016) qualitative study based in the U.S. is almost universally referenced in papers included in this review. This narrative-rich research about chestfeeding experiences centres the transmasculine voice. The diverse experiences MacDonald et al. (2016) uncovered highlight the specific and individualised lactation care needs of transmasculine individuals which have been widely utilised to inform clinical practice across the U.S. and Canada since its publication (AWHONN, 2021; Griggs et al., 2021; Martinez et al., 2020; Patel & Sweeney, 2021; Paynter, 2019; Roosevelt et al., 2021). Contrasting with MacDonald et al.'s (2016) research, Charter et al.'s (2018) mixed methods study based in Australia found that most transmasculine individuals chose not to chestfeed, predominantly due to their experiences with gender dysphoria. This may reflect differences in culture and in perinatal healthcare service provision, highlighting the importance of research production outside of the U.S.

Predominant findings within this literature have been grouped into three interconnected themes which will be explored independently. These themes are intricately linked within a cycle of the barriers trans and non-binary people face when accessing perinatal healthcare services and fielding negative perinatal healthcare experiences (Figure 2). Areas for potential further research will also be identified.

Figure 1. PRISMA diagram

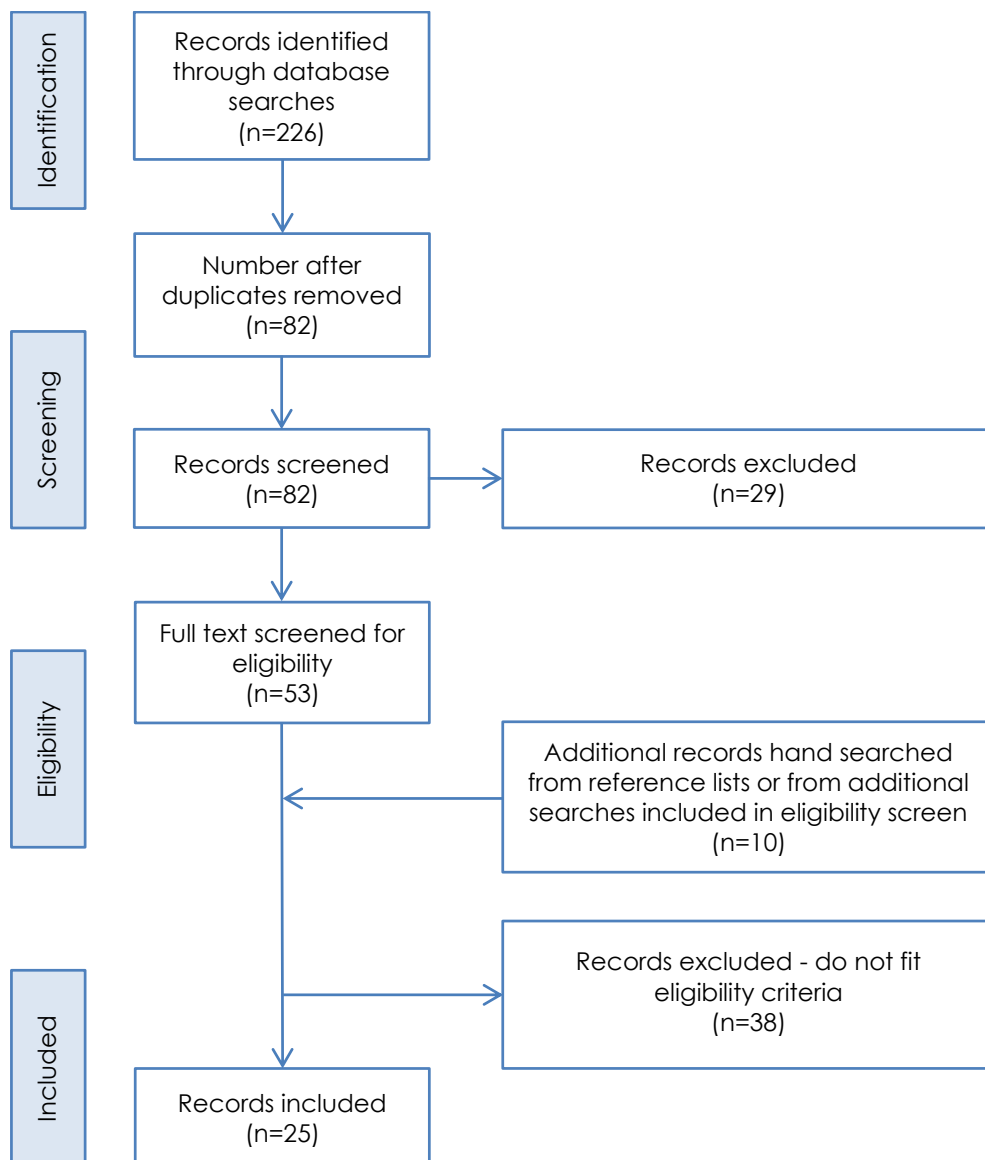
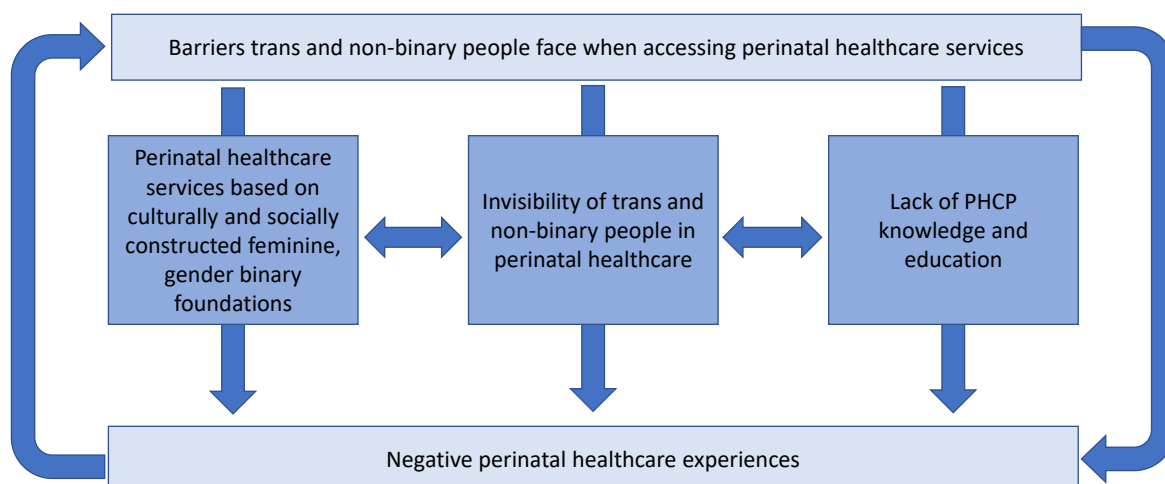


Figure 2. Connections between healthcare barriers and negative experiences derived from extant literature



The foundations of Western perinatal healthcare systems

There is consensus within the literature that Western perinatal healthcare systems are built upon culturally and socially constructed cis-normative, heteronormative, feminine, gender binary foundations (Charter et al., 2018; Duckett & Ruud, 2019; Falck et al., 2021; García-Acosta et al., 2020; Jackson et al., 2022; MacDonald et al., 2016; McCann et al., 2021; Richardson et al., 2019; Wolfe-Roubatis & Spatz, 2015). While cis-gender is a term used when someone identifies with their gender assigned at birth, cis-normative is the assumption or belief that being cis-gender is normal and is therefore privileged over all other expressions of gender (Stewart et al., 2022). Ferri et al. (2020) identify that this highly gendered assumption causes access barriers to perinatal healthcare. Unchallenged trans-exclusionary services can foster the assumption that all people who come to PHCPs will be female (Jackson et al., 2022; Wolfe-Roubatis & Spatz, 2015). This assumption is mirrored in Falck et al.'s (2021) study where trans participants expected to be seen and treated as women when accessing perinatal healthcare services. Trans and non-binary people are currently excluded from perinatal healthcare models but are challenging socially and culturally constructed assumptions, signifying that pregnancy, lactation and chestfeeding/breastfeeding are not processes that are dependent on gender (Charter et al., 2018; García-Acosta et al., 2020; MacLean, 2021).

There are authors who provide a variety of consequences for unchallenged gender-exclusionary perinatal healthcare services. Duckett and Ruud (2019) suggest PHCPs may have to contend with the perceived challenge of providing care for parents who do not fit the gender binary. This sentiment is reflected by a case study participant who described an inability of PHCPs to “disentangle pregnancy and lactation from womanhood” (Wolfe-Roubatis & Spatz, 2015, p. 34). Assumptions associated with perinatal healthcare being held within a dominant gender-binary framework can affect the quality of care provided. Medical risk is increased due to the needs of those who differ from the gender binary remaining hidden, ignored, poorly understood or pathologised (Falck et al., 2021; McCann et al., 2021). Falck et al. (2021) imply that continued regard for gender essentialist foundations could limit PHCP knowledge development in this area. Richardson et al. (2019) recommend that the heavily gendered environment that exists in perinatal healthcare must be challenged if the needs of the gender diverse population are to be met.

Invisibility of trans and non-binary people within perinatal healthcare systems

The invisibility of trans and non-binary people within perinatal healthcare systems is compounded by inadequate data collection systems (Falck et al., 2021; Griggs et al., 2021; Hoffkling et al., 2017; MacLean, 2021; Richardson et al., 2019; Wolfe-Roubatis & Spatz, 2015). Several authors report that trans men and non-binary people, who have not accessed medical or surgical gender affirming healthcare, often present as cis-gender women rather than disclose their gender, to avoid discriminatory care (Duckett & Ruud, 2019; Ferri et al., 2020; García-Acosta et al., 2020; Hoffkling et al., 2017; Richardson et al., 2019; Wolfe-Roubatis & Spatz, 2015). This practice can have opposing effects: removing gender as a focus for PHCPs to navigate is felt to help ensure healthcare needs are met (Wolfe-Roubatis & Spatz, 2015); yet, not having the opportunity to disclose gender, and therefore not having gender affirmed, can lead to increased exposure to microaggressions and dysphoric experiences (Hoffkling et al., 2017). An inadvertent

consequence of this health provider induced, self-protective practice is decreased data collection accuracy.

It is noteworthy that published literature exclusive to the non-binary population in lactation and perinatal healthcare is absent. By exploring the literature, possibilities for this include: as mentioned above, non-binary people may not be given the opportunity to disclose their gender, or choose not to disclose their gender as a form of protection from discrimination; that the majority of literature is grounded in the binary understanding of gender, therefore rendering the non-binary individual invisible; non-binary people are included in transgender research and review (Jackson et al., 2022; Roosevelt et al., 2021), possibly due to their shared rejection of the gender binary construct; and their inclusion in LGBTQ+ amalgamated review (Duckett & Ruud, 2019; Greenfield, 2022; MacDonald, 2019; Martinez et al., 2020; McCann et al., 2021). The amalgamation of LGBTQ+ communities that occurs in research is not always useful. This practice generalises findings, reducing the visibility of each group, who all have unique and often specific needs (Griggs et al., 2021; Jackson et al., 2022; McCann et al., 2021; Wolfe-Roubatis & Spatz, 2015).

Hoffkling et al. (2017) associate the invisibility of trans and non-binary populations as contributing to the lack of confidence experienced by PHCPs, as they feel uninformed and ill-prepared to care for pregnant people outside of the gender binary foundations of perinatal care. Griggs et al. assert: “As the nature of what is considered a family is changing in our society, so must our understanding of the individuals who form a family unit” (Griggs et al., 2021, p. 51).

One reason provided for the perceived rapid increase in trans and non-binary people accessing perinatal healthcare is that the representation of gender diversity in all forms of media has been advancing social awareness (Brandt et al., 2019; Duckett & Ruud, 2019; MacDonald et al., 2016). Hoffkling et al. (2017) suggest that having role models in other trans men, who are being open about their experiences, is empowering and affirming for others' journeys, further increasing visibility. Recent changes to international legislation removing forced sterilisation as a condition for receiving gender affirming medical and surgical care (Duckett & Ruud, 2019; Falck et al., 2021; Ferri et al., 2020; McCann et al., 2021; Roosevelt et al., 2021) is an additional factor. Coupled with fertility preservation practices, evolving reproductive technologies have more recently influenced the number of trans and non-binary people utilising their reproductive ability for family creation (Ferri et al., 2020; García-Acosta et al., 2020; Griggs et al., 2021; MacDonald et al., 2016; Wolfe-Roubatis & Spatz, 2015). Naturally, it follows that trans and non-binary people creating families will also need to make decisions around how to feed their children, which may include chestfeeding/breastfeeding (Wolfe-Roubatis & Spatz, 2015).

Lack of perinatal healthcare provider knowledge

Without exception, literature examined for this review at some point referenced healthcare provider knowledge, or lack thereof, as having an impact on trans and non-binary perinatal healthcare experiences. Where PHCPs lack knowledge about the trans and non-binary population and their perinatal healthcare needs, negative perinatal healthcare experiences occur. Hoffkling et al. (2017) describe misgendering, use of inappropriate language, gender assumptions based on appearance, misunderstanding and confusion of healthcare needs, transphobia, pathologisation of transness and, ultimately, trauma. Falck et al. (2021) report

exoticisation of the trans body, constant microaggressions and increased chances of negative healthcare experiences. Richardson et al. (2019) illustrate in their hypothetical case their subject being met with confusion, stereotyping and gender bias, and Jackson et al. (2022) speak of non-inclusive policy and practices. Additionally, several authors report inadequate access to information, support and healthcare choices (Falck et al., 2021; Ferri et al., 2020; Jackson et al., 2022; Richardson et al., 2019; Wolfe-Roubatis & Spatz, 2015). Falck et al. (2021) indicate that trans and non-binary people have low expectations of care efforts from their PHCP and may often endure such disrespectful care because of the necessity for healthcare provision.

Several authors reference high proportions of trans and non-binary people who felt the need to educate their PHCPs about their unique and specific care needs (García-Acosta et al., 2020; Hoffkling et al., 2017; Martinez et al., 2020; Roosevelt et al., 2021; Wolfe-Roubatis & Spatz, 2015). PHCPs who recognised knowledge limitations and took responsibility to educate themselves were appreciated by research participants in both the Falck et al. (2021) and Wolfe-Roubatis and Spatz (2015) studies. One participant in Hoffkling et al.'s (2017) study identified the importance of PHCPs distinguishing between their own lack of knowledge, "I don't know" (Hoffkling et al., 2017, p. 11) and lack of research and information, "Science doesn't know" (Hoffkling et al., 2017, p. 11) when making decisions about their healthcare.

Charter et al. (2018) and Wolfe-Roubatis and Spatz (2015) assert that PHCPs require education to better support chest changes, lactation and chestfeeding for trans and non-binary populations. This is supported by Falck et al. (2021) who identify that participants with a desire to chestfeed found their PHCPs ill-prepared with the information and support that was required to help them do so.

There are various infant feeding options available to trans and non-binary parents, many of which are similar to those of cis-gender parents (Ferri et al., 2020; Roosevelt et al., 2021). However, where diverse and individualised options need to be discussed, it is important that PHCPs first look beyond the common assumptions and gendered understanding of "mother-baby" infant feeding (Greenfield, 2022), then have some knowledge of the diverse feeding options available and the factors that may challenge lactation initiation and maintenance (AWHONN, 2021; MacDonald et al., 2016; McCann et al., 2021). There is also a need for awareness of the different medical and surgical gender affirming care approaches and the potential impact each of these may have on lactation so that appropriate individualised lactation and infant feeding support is provided (Ferri et al., 2020; Hoffkling et al., 2017; MacDonald et al., 2016; Martinez et al., 2020; Obedin-Maliver & Makadon, 2016; Patel & Sweeney, 2021; Roosevelt et al., 2021).

Charter et al. (2018) report that many trans men do not access chest surgery prior to pregnancy, identifying inaccessibility due to cost as a potential cause for this. However, chestfeeding can be possible after chest masculinisation surgery (MacDonald et al., 2016; Paynter, 2019), which differs significantly from mastectomy surgery (García-Acosta et al., 2020). A multi-disciplinary approach may be required to coordinate appropriate lactation and chestfeeding support (Patel & Sweeney, 2021).

Ferri et al. (2020) affirm the benefits of supporting any lactation potential after chest masculinisation surgery. Where lactation and chestfeeding are desired, MacDonald et al. (2016) suggest promoting the non-nutritive benefits of chestfeeding to help negotiate potentially variable milk production ability where chest

masculinising surgery has occurred. Similarly, Duckett and Ruud (2019) describe a "bidirectional nurturing interaction" (p. 229) between an infant and parent, when discussing chestfeeding, as about more than just nutrition for the infant.

The practicalities of chestfeeding after chest masculinisation surgery are only briefly mentioned in the literature, with the potential need for "sandwiching" taut chest-tissue to achieve attachment (García-Acosta et al., 2020; MacDonald et al., 2016), and the suggestion that the rugby-hold and crossover hold may be more optimal positions for latching (García-Acosta et al., 2020).

Minimal consideration has been given to hormone therapy within this literature. Patel and Sweeney (2021) caution about the limited data and therefore limited knowledge associated with long-term outcomes of gender affirming medical care, hormone treatments and medications used for inducing lactation in trans women. They also highlight the lack of knowledge around the reintroduction of gender affirming testosterone, after lactation is well established. However, Paynter (2019) has warned against withholding care options based only on over-pathologised assumptions of lactation for trans parents.

In addition to the clinical practicalities of chestfeeding, PHCPs' understanding of dysphoria has been commonly identified in the literature as essential for delivering appropriate lactation and infant feeding support to trans and non-binary parents (Duckett & Ruud, 2019; Ferri et al., 2020; García-Acosta et al., 2020; Hoffkling et al., 2017; MacDonald et al., 2016). The development of breasts and breastfeeding are traditionally understood as profoundly gender bound to the feminine, contributing to experiences of dysphoria for some people (Brandt et al., 2019; MacDonald et al., 2016). Duckett and Ruud (2019) remind us that a willingness to utilise reproductive ability does not remove the potential for dysphoric experiences. Contributing to gender identity incongruence, Ferri et al. (2020) identify potential triggers for dysphoric experiences as cessation of testosterone during pregnancy, and the hormone and body changes of pregnancy – particularly chest tissue development. MacDonald et al. (2016) emphasise the importance of understanding the difference between dysphoria that is embedded in a person's feelings about themselves and their own body, compared with dysphoria triggered by PHCPs and others misgendering them.

An additional potential barrier for PHCPs providing safe and effective care for trans and non-binary populations is that the language used by, and for, this population is perceived as constantly changing (Duckett & Ruud, 2019; MacLean, 2021; Roosevelt et al., 2021). The consensus is that this can be solved very simply, and the message is clear: ask every pregnant person what language they use for themselves (name and pronouns), for their body and for their parenting choices; listen, then mirror this language (AWHONN, 2021; Duckett & Ruud, 2019; Falck et al., 2021; Ferri et al., 2020; García-Acosta et al., 2020; Griggs et al., 2021; Hoffkling et al., 2017; Jackson et al., 2022; MacDonald et al., 2016; MacDonald, 2019; MacLean, 2021; Martinez et al., 2020; McCann et al., 2021; Obedin-Maliver & Makadon, 2016; Richardson et al., 2019; Roosevelt et al., 2021; Wolfe-Roubatis & Spatz, 2015). This is echoed by the participant voice in qualitative research. Positive encounters are described when their PHCP is respectful, uses gender affirming language and correct pronouns (Falck et al., 2021; Hoffkling et al., 2017; MacDonald et al., 2016). With such overwhelming consensus among authors, failing to provide opportunities for pregnant people to disclose and affirm their gender, and use their pronouns, could be considered an omission of care.

Roosevelt et al. (2021) advocate the use of culturally humble, trauma-informed care, which incorporates many concepts already described here that result in positive care experiences: partnership, patient-centred care, communication, informed decision-making and taking our language cues from those to whom we are providing care.

This literature clearly identifies that PHCPs need more education to address the lack of knowledge and cultural understanding (Brandt et al., 2019; García-Acosta et al., 2020; Griggs et al., 2021; Hoffkling et al., 2017; Obedin-Maliver & Makadon, 2016), and to address the substantial gap between what is known, what is taught and the real healthcare needs of trans individuals (García-Acosta et al., 2020; McCann et al., 2021). Trans healthcare providers attending a World Professional Association for Transgender Health Conference, and surveyed by Trautner et al. (2020), predominantly indicated a desire for further knowledge about inducing lactation for their trans feminine clients.

While Duckett and Ruud (2019) assert that it is a professional obligation for PHCPs to inform themselves, MacDonald et al. (2016) urge PHCPs to recognise that, without seeking education and improving their knowledge, they are capable of causing iatrogenic harm. This statement from Hoffkling et al.'s (2017) research mirrors this: "In the absence of sufficient training, even the best-intentioned providers are likely to miss chances to provide medically and culturally appropriate care. Furthermore, less motivated providers are likely to make gross errors" (p. 17).

It is interesting to note that trans people seek midwifery care at significantly higher rates than the general population in the U.S. (Falck et al., 2021; MacDonald et al., 2016; Obedin-Maliver & Makadon, 2016; Richardson et al., 2019). This may be related to seeking perinatal care outside of institutional systems to avoid discriminatory care (Hoffkling et al., 2017; Greenfield, 2022). MacLean (2021) states: "If transgender men are gravitating toward midwifery care, providers should be examining how the midwifery model of care supports pregnant transgender men to understand their needs and translate these findings into practice" (p. 131). Contributing to perceptions of support and consistent messaging, one aspect of midwifery care that has been reported to positively influence perinatal healthcare experiences is continuity of care (Jackson et al., 2022; McCann et al., 2021). Conversely, participants reported increased feelings of vulnerability in Falck et al.'s (2021) study where participants had to navigate barriers to healthcare with each new PHCP.

DISCUSSION

Inadequate PHCP knowledge specific to the needs of trans and non-binary people accessing perinatal healthcare has been illuminated as a factor affecting accessibility, equity and quality of healthcare. The call for evidence based education to improve PHCP knowledge and gender-literate care is echoed in much of the literature reviewed. With care, respect and attention to language, the clinical practicalities of lactation and chestfeeding/breastfeeding care for trans and non-binary parents can often be adapted from the vast amount of clinical lactation and breastfeeding information already available (Ferri et al., 2020; García-Acosta et al., 2020).

There is limited research generation outside the U.S. context and an absence of literature produced in Aotearoa NZ about lactation care and chestfeeding/breastfeeding support for trans and non-binary people. As a result, midwives and other PHCPs in Aotearoa NZ have limited research available to expand their knowledge and inform the provision of this care. The cultural context and

perinatal system in Aotearoa NZ are vastly different from the U.S., where the majority of this literature has been produced. Therefore, takatāpui who identify as trans and non-binary, and the potentially important cultural context they may contribute, are rendered invisible. Internationally, the foundations of the perinatal system, and the language projected within it, have been based on dominant Western social and cultural norms, including heteronormative, feminine, cis-normative and gender binary frameworks. Although drawing from international literature can be useful, this means current literature does not capture Aotearoa NZ's unique cultural or midwifery care perspectives. Kerekere (2017) asserts that gender diversity is not a new concept in Aotearoa NZ and that gender binary ideals, introduced to Aotearoa NZ by colonisation, have been, and continue to be, predominantly responsible for the invisibility of gender diversity in Aotearoa NZ.

The New Zealand Health Research Prioritisation Framework states: "All researchers, regardless of research stage or discipline, should consider and address how their research will contribute to health equity in the short and long-term" (Health Research Council of New Zealand, 2019, p. 13).

Research conducted in Aotearoa NZ can contribute to increasing the visibility and equitable care of trans and non-binary parents in perinatal services, and mātauranga Māori perspectives will enrich this research landscape. Funded by the Health Research Council of New Zealand, research about understanding the need for trans, non-binary and takatāpui-inclusive maternity care commenced in July 2021 (The Trans Pregnancy Care Project, n.d.), the first research project of this type in Aotearoa NZ. This funding could be seen as an acknowledgement that it is time for research of this nature in Aotearoa NZ. An article reporting on data collected from the initial phase of this study has recently been published (Parker et al., 2022), beginning to fill some knowledge gaps within this research sphere.

In addition to PHCP knowledge, research gaps identified include: the effects of hormones and gender affirming care protocols on lactation and chestfeeding/breastfeeding (Patel & Sweeney, 2021); the process and impact of chest binding during pregnancy and while chestfeeding (Griggs et al., 2021; MacDonald et al., 2016); and knowledge about, and the experiences of, trans women using lactation induction protocols where breastfeeding is desired (Paynter, 2019; Trautner et al., 2020). Further, the effects of intersectional identity are not apparent in extant literature, reflecting an absence of cultural acknowledgment within this sphere so far. Further research about the clinical practicalities of chestfeeding after chest masculinisation surgery would enhance knowledge, as would research exploring PHCP understandings of the lactation and infant feeding care and support needs of trans and non-binary whānau, and the factors that influence PHCPs to seek further education about this topic.

Only one paper explored the concept of trauma-informed care as it relates to trans and non-binary people accessing maternity and lactation care (Roosevelt et al., 2021). Owens et al. (2022) succinctly articulate why trauma-informed care deserves further consideration in trans-inclusive care provision: "Given the disproportionate burden of trauma in marginalized communities, trauma-informed care implementation is an opportunity to decrease disparities in healthcare and health outcomes" (p. 675).

Midwives in Aotearoa NZ already have the frameworks in place to provide safe, equitable and culturally safe care for trans and non-binary parents. However, without midwives having further education about how to provide the environment or opportunity

for all pregnant people to feel safe about sharing who they are, trans and non-binary people may not be able to access this potentially positive healthcare experience. In a newly published article, Parker et al. (2023) urge us to take up the challenge of incorporating gender inclusive care into midwifery education. Based on the work of Parker et al. (2023) and this review, additional education, to support the midwifery profession to meet the clinical and cultural needs of trans and non-binary whānau in the perinatal healthcare space in Aotearoa NZ, is warranted.

CONCLUSION

The purpose of this literature review was to explore what is currently known about the lactation and infant feeding care and support needs of trans and non-binary parents, to consider the implications for midwifery practice in Aotearoa NZ and to identify additional research needs. Evidence from this review clearly demonstrates that cis-normative, gender binary foundations are omnipresent in perinatal healthcare. Trans and non-binary people are therefore rendered invisible and are excluded from this space. These factors contribute to the limiting of PHCP knowledge. This model eventually leads to negative healthcare experiences for trans

and non-binary people, contributing to a cycle that generates and perpetuates barriers to perinatal healthcare access.

This review has identified three dominant themes related to the gap in PHCP knowledge about the lactation care and chestfeeding/breastfeeding support needs for trans and non-binary people. These themes were consistently identified and reported. There is an absence of research in Aotearoa NZ exploring the lactation and chestfeeding/breastfeeding care and support needs for trans and non-binary parents.

Conducting research of this nature here in Aotearoa NZ could help inform whether adaptations and additions to current midwifery education are necessary, the goal being to support midwives and other PHCPs to competently provide equitable, safe, culturally appropriate, gender-inclusive care. Additionally, research examining the knowledge and beliefs of Aotearoa NZ midwives about the lactation care and chestfeeding/breastfeeding support needs of trans and non-binary parents will also help inform ongoing education needs.

CONFLICT OF INTEREST DISCLOSURE

The authors declare that there are no conflicts of interest.

GLOSSARY

Cis	A term for someone whose gender identity aligns with their sex assigned at birth (Oliphant et al., 2018).
Cis-normative	A discourse based on the assumption that cis-gender is the norm and privileges this over any other form of gender identity (Stewart et al., 2022).
Gender	One's actual, internal sense of being male or female, neither of these, both, etc. In some circles, gender identity is falling out of favor, as one does not simply identify as a gender, but is that gender (Trans 101: Glossary of trans words and how to use them, 2023).
Gender affirming care	Healthcare that is respectful and affirming of a person's unique sense of gender and provides support to identify and facilitate gender healthcare goals. These goals may include supporting exploration of gender expression, support around social transition, hormone and/or surgical interventions. This may also involve providing support to whānau, caregivers or other significant supporting people (Oliphant et al., 2018).
Gender dysphoria	A clinical term referring to a dissonance between one's assigned gender and/or body and their personal sense of self (Trans 101: Glossary of trans words and how to use them, 2023).
Mātauranga Māori	Māori knowledge
Microaggression	A small act or remark that makes someone feel insulted or treated badly because of their race, gender, etc. that can combine with other similar acts or remarks over time to cause emotional harm (Cambridge University Press, n.d.).
Non-binary	A commonly accepted umbrella term used in Aotearoa NZ representing all genders other than female/woman/girl and male/man/boy (Trans 101: Glossary of trans words and how to use them, 2023).
Takatāpui	A Te Reo Māori term, which is used similarly to "rainbow person" or "rainbow community" or BTQI+ (Trans 101: Glossary of trans words and how to use them, 2023).
Trans	Another commonly accepted umbrella term used in Aotearoa NZ representing people who disagree with, or do not identify with, the gender they were assigned at birth (Trans 101: Glossary of trans words and how to use them, 2023).
Transmasculine	"Transmasculine individuals are people who were assigned as female at birth but identify on the male side of the gender spectrum" (MacDonald et al., 2016, p. 1).
Turanga Kaupapa	Guidelines for cultural competence developed by Ngā Maia o Aotearoa and formally adopted by both the Midwifery Council of New Zealand and the New Zealand College of Midwives (New Zealand College of Midwives, 2019)
Whānau	"Whānau is an inclusive term that is used to recognise the diversity of individuals within their social context. Whānau is a word indigenous to Aotearoa New Zealand. Who decides what a whānau is, is determined by whānau and this is critically important to maintain the integrity of the full meaning. Whānau are the determiners of what health and wellbeing means for them. Individual rights and interests are not subsumed by the recognition of the collective" (Te Tatau o te Whare Kahu Midwifery Council, n.d.).

Key points

- The highly gendered assumptions present in Western perinatal healthcare produce barriers for trans and non-binary people to access this care.
- The invisibility of trans and non-binary people in perinatal healthcare contributes to the limiting of perinatal healthcare provider knowledge.
- Additional literature production can contribute to improved understanding and increased provision of gender-inclusive perinatal healthcare, enhancing midwifery care.

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Accepted for Publication July 2023

Gargiulo-Welch, S., Parker, G., & Miller, S. (2023). The lactation and chestfeeding/breastfeeding information, care and support needs of trans and non-binary parents: An integrative literature review. *New Zealand College of Midwives Journal*, 59, 47-55

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